

WO 00/28040

PCT/US99/26260

SEQUENCE LISTING

<110> Wong et al.

<120> CLONING OF RHADINOVIRUS GENOME AND METHODS FOR ITS USE

<130> 53683

<140> 60/107,507

<141> 1998-11-06

<140> 60/109,409

<141> 1998-11-20

<160> 179

<170>

<210> 1

<211> 133719

<212> DNA

<213> Macaca mulatta rhadinovirus 17577

```

1  GATCGGGAAA  ACGCGAGGGG  AGCGGGGGAC  AGGGGACGGC  GTGTGCGTGC  TTGTGAGACA
61  CCGGCTACGG  CTGCCTGCCT  GCTCGCTGGC  CTGCTTGCTG  AGGGGACAGT  AGGCCTGCTT
121 GCTCGCTGGC  CTGCTTGCTG  AGGGGACAGT  AGGCCTGCTT  GCTGAGGGGA  CAGTAGGCCT
181 GCTTGCTCGC  TGGCCTGCTT  GCTGAGGGGA  CAGTAGGGCT  GCTGGCTTGC  TAGTAGGGCT
241 GCTCGCTGGC  CTGCTTGCTT  GCTCGCTGGC  CTGCTTGCTT  GCTCGCTGGC  CTGCTTGCTT
301 GCTCGCTGGC  CTGCTTGCTT  GCTCGCTGGC  CTGCTTGCTT  GCTCGCTGGC  CTGCTTGCTT
361 GCTCGCTGGC  CTGCTTGCTT  GCTCGCTGGC  CTGCTTGCTT  GCTCGCTGGC  CTGCTTGCTG
421 AGGGGACAGT  AGGGCTGCTT  GCTTGCTAAG  GGGACGGTAC  GCCTGCCTGA  TGGCTTGATA
481 GTAGGGCTGC  TGGGCTGCTA  GTAGGGCTGC  TGGGCTGCTA  GTAGGGCTGC  TGGGCTGCTA
541 GTAGGGCTGC  TGGGCTGCTA  GTAGGGCTCC  TGGGCTGCTA  GTAGGGCTGC  TGGGCTGCTA
601 GTAGGGCTCC  TGGGCTGCTA  GTAGGGCTGC  TGGGCTGCTA  GTAGGGCTGC  TGGGCTGCTA
661 GTAGGGCTGC  TGGGCTGCTA  GTAGGGCTGC  CTGCTGGCTT  GCTTGCTTGC  TTGCTAGTGG
721 GGCCGCTTGC  CTGCTACTAG  GGCTGCTGTG  CAGCTGGGAG  AACAGAGTAG  GGCTGCCGGC
781 CAGCTGCGTG  CGAGGGCGTC  CGAGGGCCAG  ACGAGGACAC  GGGACCCGGG  CCTCTCCCCC
841 AGGCACAAAG  CAGTAGGGCT  GGCCAGGGGA  AACAGTAAGG  CTGATTGCTT  GCTGAAAAAC
901 AGTAGGGCTG  CTGGTTTGTT  GCTAACGGAA  AAAGGGGAGG  TGTGTGTATG  CTTTTGTGAC
961 TTTCCAGCGG  AGGGGGTACA  GTGCACGGCC  AAGTTACAAG  CACCTGCTTA  ACTTGCTTTG
1021 GCTCTGTGCG  GTTTTGTTGC  TAGGTACTAG  TAGTAACACA  TAGTATTTCA  TCGCATGGCG
1081 CCTGCATACG  CTCCACAGCA  TCCGAAACAC  GTTATTTCTA  TAGACTAACT  TTAGTGTTC
1141 TCTTGTTTGG  TACCATTTTA  CGAAGTTTGC  TCCGTTGAAT  AATAAGAAAT  CCGTTGTGGT
1201 TACAATACAC  CTGCCAACGT  ATTGGATGGT  TCCTTTTGCC  ATCAACCTTT  GCTTGCAATC
1261 TAACATTGAA  TTTTCACATT  ACACCCTAGT  CTTCTCATGC  AATTAGGTAT  GTCTTTGCTC
1321 GTGTTTAATT  TTCTCTACAC  ATTTCTGTGG  AAATGTTTGT  GTTGGTTTTA  TTTATGTTAT
1381 TGCAACCTGT  ATCGGTGGAG  CTTTTCCTG  CAAAATTAAC  TTCTGTTCCA  ACGTGGTGTC
1441 CACCACATCC  CGGAGATACC  TACTTGCTAA  CCTGCCGCGG  GACGTCTACG  GCCAGAGACC
1501 AGCGAAGCAC  ACAATGGTTT  CGCAACAACA  CGCTTATGCG  TGGGAGTAAT  TTCTACGGCA
1561 GACTGGTATC  TGTGACTCCC  AATGCTACGA  TATCTGACCG  GTATGCGTGT  CAAACAAAAA
1621 CAACAACGCG  GAGTAACAAC  ATCGATTTTC  GGGTAAGCTC  ATCGCGCCTC  ACGCTCCAAG
1681 AACGGTGCTC  TTCATACGGC  TATACTTACG  CGAATAACAC  AAGGGTATTG  AGGTGTTACT
1741 CTGGTGGAAG  CGTAACTTTA  AGAAACGTTG  TCTTTTCAAT  AAACGGTACA  GCGGTCATCA
1801 ACGGTACTAC  AACAAACATA  CATACATTTG  TGTTAACAGA  AAAGACAGGA  GGGACGTATT
1861 TCTGTTCTGC  GTTTATTGGG  AATGAAAAAT  TCTATTCTCA  GACAATTAAT  GTGTTTTTTA
1921 CTTCAATTTAC  CTTTAAACCT  ACAAACGACA  TTCCAATGA  GTCACATTTT  AATAAACTG
1981 GGCAAATACA  ACAAACAGCT  AGTGTAACAC  ATCCTGAAAA  CTACGTTGTG  TTCTCTGTT

```

2041 CCGTTTTTTC TATTGGCGTT TTAACAGGTA TTGCAATATC GTTGATTATG TGTGGTTAT
 2101 TTACAATACG CTGCAACGAG AACTCTGAAT CATCAACTAA TAGTTATGCA AGCCAGACAA
 2161 GCTACATTCA ACCCTCCCAT AATCAGCGTT CCAATACTAA TGAATGTAGT CGCCATACCT
 2221 ACAGAAATGC TCATCAAGAA GAGAGTATTG AAGAACTACC AAACCAACAC ACAAGTGAAA
 2281 CTGATTCTTG CTGTCAATTA GTTTTACTTG AAGTGAAAAA TGTAGCCTAC GATGGACCGC
 2341 AGGAAAACAC AATTAACGAA GTTATGGAAC AGTATGATGA TGTGGTTGTA AAAAATATAG
 2401 AACAAACATC ATATGAGGAT AATGTTGAGC ACATGGACTA TAGTGATACT ATAAATCCCA
 2461 ATTTTAATTA CTACAGTGGA CTAATATTGG AAGAAGTAGA TGAAGTTTTT TACAATGAAC
 2521 TAGAAAATCA ATATCATGGA TTAATACTGG AGAATTTAGA TCACAATGAG TACAATCATT
 2581 TAAATGAATT AAACATGATA GAACAATATG ATTGGTTAGA ATAAATAACT TGTGGGTTAT
 2641 TTTTAAATTA AAACATAAAC AACATTAAAG CAGCATTTTT GTGTAAATCC TTTATTTATT
 2701 AAAATTTTTT TCATATACCT GAAACTTATA TTTAATTCCA TTTTCCTCAA AGTTTGTATC
 2761 TTTGCCCGGT ATCTCTGATA ACATGGTGTA TTCGGTAAAA TTAATTGATG GAAAAATAC
 2821 ATCACAATCA AAACCTCTCA TAATGCGCGT AATATATAGT TTTAAGGGAC ACTTATAGTT
 2881 AAGAACAATC TCATAAACAG ATTTTCCTCC AATAACCCAG ACCGTGTTTA ATTGTTCTTT
 2941 TAGTTTGAT TGTCTATAGA AATTAAACGC ATCGTCTAGC GTTCTCGCTA GAAAGTGTGC
 3001 TCCGTGCGGT GGTTCACGTA ATTCTCTGCT CAAAATAATA TTAATTCTGT TCACCAGAGG
 3061 GCGCTTCTTT TCAGGGATGG AAAACCATGT TCTTTTCCCC ATAATAACCA CATTCTTTTC
 3121 ACCTACAACC GATGGCGTAG ACGTCATTTT CTGAAAATAC ATCATTTCGT TTCTAAGGTA
 3181 CGGCCAAGGC ATTGTTCCGT TTTTACCAAT TCCTAATTGT TCATCAACTG CAACGATGCA
 3241 GTTAACTGTA ATGTCCATGG TTTTAGTTGC CACTGACGGG TTTAACACAG AAGTATTTCA
 3301 CAATTATAAA CAAATAACCC ACGTGACATG TACTTACTAA TGTAAGTACG TAACGTGATA
 3361 TAGTTAATCA TATTCGCTTT CACATAATGG ACAAACGAA AAAATGTTAC CTGTGTTAAG
 3421 CCTACCTTGT TTGGATGGAT TTATGGTTAC AATGAAAAAT AAAAATATAT ATATAACGTT
 3481 TTTTACGTAA AACATATTGT AATTTAATCA CGTGATGTTT ATGTTGGCTA CTAACACACA
 3541 ATGTTTGCAT AAAAGCACTT ATGTTAGTGA GCTTCAATCT TTATATTTTA TTCAAATTGT
 3601 TTAAAGAGGC ATGTGAATAT ATTTAACACG CATTCAAGAA TAGGCGCAAC GCTGTGCCGT
 3661 ATAAGTGGTA AAAACATGAC GTTTAAACTT TTTCTCTGT TTTTATTACA CGCCATAATG
 3721 TACGTCCACT GCGATGAAAA CTGTAAACCT CCACATTTCA CGGAATATCG CGTCAAGTCT
 3781 AACACAGAAA AGGACTTATA TAGTGTTGGA GAAACAGCTG AATTAATTTG TCGTCTGGT
 3841 TATGTTACAA ATACAAAAAT AATAACAACA GAATGTTTAC AAAATGGTAC GTGGTCAACA
 3901 CCAAATTTTC CATGCGACAG AAAAAGATGT CCCACACCTG CTGACTTGCT GAATGGAGCC
 3961 GTGCACATT ACGGGGGAGA TAATGCCTTA AAATTTGGAT CCAATATTTT CTATGAGTGT
 4021 AATGAAGGTT ATGATTTAAT TGGTAGTAAT GTTCGTTTTT GTATTTTACA AGACACAGAA
 4081 AACGTAAATT GGGATTCAAA TGAACAGTC TGTGAAATTC AGAAATGTAT TAAACCACCG
 4141 GCAGTGGAAC ATGGGGACTA CCTACCTAAC CAAGATGTTT ATAAGTATGG AGATGCAATT
 4201 ACATTTAAAT GTTCATTGTC GTATACACTC GTTGGATCAA CAACATTAGT ATGCACGTCA
 4261 AACAAAAAGT GGTCAAATC TTTCCCAACG TGTTTAATGC TCGTATGTGA AAGTCCACAA
 4321 ATAGACAATG GGTACATAGA CATTGGCTTG TCCAGAAGAT ACAACCATGG ACAATCAATT
 4381 ACTGTAAAGT GTAGCGACGG GTACAACATT GTTGGCCTG AAACATTAAC GTGCACAAAC
 4441 ACAACTTGGG TTCCACCAT ACCTAAGTGT GTATTAGTTA CAAATAACCC AAGCACACCC
 4501 ATGCCAGAAA CACCCATGCC AGAAACACCC ACGCCAGATT ATCAAAAAAT AAATTTGTCA
 4561 ACCGCTAAAA CTGCAACAAC ACCAAATGCG TTTGTTACAA CTGTTGTTTC TCCAGAGAAA
 4621 GACGACGTTA CTTGTGTAAA GCCTCATTTT GAGCGATTCA TGGTAAAGGC TGAATATGAC
 4681 AAGGAAAAAT ACAGTGTGTTG TGCGAGCGTT GAGCTAATAT GTCGACCAGG ATTTACTAAA
 4741 ATGCAGTCTA CAGTTTCTGT TGAATGTTTG TCCAACGGAA CATGGACTGC TCCAATGCC
 4801 AAGTGTCTA GAAAAAATG TCCAACCCCT CAAGAACTTT TAAACGGAGA GTATATAGTT
 4861 ACAAGCGGAG AAGATGCTTT TAAGTACGGA ACAAATATAA CATATAAATG CAATAAAGGT
 4921 TATCAACTTT TAGGAAGTAT GGTGCGGATT TGTATGCTTA AAGACGATTT AAAAACAGTT
 4981 GACTGGGAGC CAAAAGCGCC TATATGTGAT ATTGAAAAAT GTAAGCCACC GCCACAAATT
 5041 ACAAACGGAA AATACCATCC GGTGAAAGAC TTTTATCAGT ATTTGGACAC CGTAACATTT
 5101 TCGTGCAATC GTGACTTTTC TTTAGTTGGA GATGAAATGA CAACGTGTAT AAGTAATACG
 5161 TGGAATAAAC CGTTTCCAAG ATGTGAACAA ATCACTTGCA GCGCTCCTAA TATTGCACAC
 5221 GGAAAGCTGC TAACAGGTTC TTCAAGCGTT TACAAATACG GTCAATCTGT TACCATTGGT
 5281 TGTGAAACTG GATTTACTCT AATTGGCAGT GAAATTTCTA CATGCAAGGA TTCATCGTGG
 5341 GATCCACCAC TTCTACGTG CGTGCCAGCT GTTTCAATGC CTTCTGACAC ACCTAAACCA
 5401 GAAACCAAAA AACCACACAC GCCAACGCCA GAAGCACCCA AACCACACAC CCAAACGTT

5461 GGAACACATA CACCATTCAA ACCACCACCA CAAAATCCAC CAATAGCACC CCCAATGAGT
 5521 AAATGGAAAA GGCATGTCGT GTTAGTTCTT TTTGCAAGTG TCGCGTCCTT GTTATTTCGTA
 5581 CTTGCTGCCC TTTATTGTTG TTTTCTAAAA TAACTGTTTT TTGTCTTCAG CAGGTTTCGCC
 5641 AGGCAAACCTC GCACGCATTA ACCAATCTGC CAACCGCCGT TGATTCCGGA ATTAAGTTTA
 5701 CATTATTCAA GGTTGCCAAT AAAGGTGGTT TAAAAATATT CTATTGGTGT TCATTGTTTT
 5761 ATGTTGACCC GTTTATAGTT ATCGCGCCAC CTTGTGGCTA CATTATATAG CACGATCACT
 5821 TTCCACGTTA TACTTTCACG TACTATGACT CATACGCCCT AACGTCACGT GGCCTGCGAT
 5881 TGTGGCCGGG GCTGAAAATA ACACAAGGGG TACATAATCC ATCCAGGCGG CACACATTAG
 5941 ACACGGTTTA TAAACTATA TCGGATGCGC CAACAATCAC TGTCGCTAGC GACACTGATA
 6001 GAAAAACATT TTAACGTTTG TTTAGCGAAC TTGAATAACA CATAATGGCT TCCAAAGGCA
 6061 ACGCCGGACA ACCCCTGGAA GATAATCAGG GGTCTCGTGC CCCGATAGGT GCGTGC GGAT
 6121 ACGTGACGC GTATTGAAA CAAGACTTTC CCTTGCCGA GCGCTCCATA CTCGGCAACA
 6181 GACCATCTGG ATCTGGCGTT TTCTCGCTAC CAATCCTTTA CGGACTTACA GTTGAACACG
 6241 AATTCCCTCT CACCGTAAAA GCCGCATACA AAAAAGTTGA CACCACGACG CTCGCCGTTA
 6301 AGGTGACGTG CTTTCACAGA GAGGTTATTG TGTTTCACAA TGCAAGTTTA TTCAGGCCGG
 6361 TGTTTGACGG TACCGGTCTT AACGAACATG GCGAGGAAGC CAGGGCTCTC TTTGGGTACA
 6421 CGCAGTTTAT AGAACCGGGT CCACCTCACA GCATATGGAA CCCTCTGGAA TGTCCGCGAT
 6481 TACCGGACAA GGATGAGATG TTTCTTGCGC TTGTTGTTAC GGAAGGGTTT AAGGAAAGAC
 6541 TGTGGAGGGG CTGTCTCGTT CCCGCGGTGT TCCAGACCCA GCAGGTGCAG ATTGCCGGAC
 6601 GCCAGGCGTT TAAAGTGCCG TTGTACGACG AAGACCTGTT TGCACCTCAC GGTTCATAGAA
 6661 TGCCAAGGTT TTACCATAAA GACGTTAGCG CGTACCTCTA CGACTCCCTC TTTACCAGCA
 6721 TCGCCAGGC CCTGAGACTC AAAGACGTGA CGGCGGTCTA CCACGCCACA GAAAAGCAAT
 6781 TCATGCAGGA CCATTACAAA ATTGCCAAGA TAGTGACGGC AAAACAGTTT TCAACGACGC
 6841 TGCCGAAAAC GACAGACGGG TCGTCCCACT TGATTGTGGA CAGCGTCGTC GCCAGCTCG
 6901 CCCTTAGTTA CGGCTGTATG TTTCTCGAGT GTCCCCAGGA CGCGTGCGAG TTGCTGAACT
 6961 ACGATAGCTG GCCCATATTT GATGGTTGTG ACTCACCAGA GGCTAGGGTT AACGCGTTAG
 7021 AGCGCTGGTC GGCCGAACAG GCCGTTACAG TGGCGGGTCA ACTGTTTCGCT GCCAATTTCGG
 7081 TGCTGTACCT AACTAAAGTG CAGAAGCAAG CGCCCAGGGG ACAAAGGGA GACGTAAACG
 7141 TGTACAACTC CTTTTTCCTC CAACACGGAC TGGGGTTTTT AAATGAGGCC ACGATCAAGG
 7201 AAAACGGCAG CGAAGCCTTT AAGGGCGTAC CCTCAAACGC CCTCGATGGT TCTTCGTTCA
 7261 CGCCGTATCA CCTGGCCTAC GCCGCGTCTT TCTCGCCCCA TCTGCTGGCG AAGTTATGTT
 7321 ATTACATGCA GTTCTTGCAA CACCACAAAA GCTCCACGAA CCAGGCGTTT AACATGGTCC
 7381 ATTATGTCGG CACCGCCGCC AACTCAGAGA TGTGCACGCT ATGTCACGGC AACACGCCGG
 7441 CAACGTGCCT CAACACGCTG TTCTATAGAC TGAAGGATAG GTTTCCCGCC GTAACCACCC
 7501 CTCAGCGCAG GGACCCCTAC TTGGTGACCG GAACAGCCGG GACCTTTAAC GACCTGGAGA
 7561 TTCTGGGCAA CTTGCGGAGC TTTAGAGACC GCGAAGAGGA CGGAAACCCG GCCGACGAGC
 7621 ACCCAAAGTA CACGTACTGG CAGCTATGTC AGACCGTGAC AGAAAAGCTA TCCGCGATTG
 7681 GAATCACCGA AGACCACGAT AATCACGTGA ACCTCATCAC CAACATCCAA AGTTTTCTCA
 7741 GGGTGTTCAA GGGTATCGAC TCAATTGTGG ACGGAGAGGT CATGAAGTTC GTTAATTCTGA
 7801 TGATTAAAAA TAACTTTAAT TTCCGCGAGC ACGTCAAATC GGTCCATCAC ATACTCCAGT
 7861 TCTGCTGCAA CGTGTATTGG CAGGCGCCGT GCGCGGTGTT CCTGAATCTG TACTACAAAT
 7921 CCCTGCTGTG GATCATTACG GATATCTGCC TGCCGTACTG CATGATCTAC GAACAAGATA
 7981 ATCCGGCGAT GGGCATCCTC CCCTCCGAGT GGCTAAAGAT GCATTTTCAG ACGTTGTGGA
 8041 CGAACTTTAA AGCGGCGTGT CTCGACCGCG GGGTCCTCAC GGGGTGCGAA CTGAAAATCG
 8101 TACACCGGGA CATGTTCTGC GACTTCTTCG ACACCGACGC GGGGTCCAAC GGCTTAATGG
 8161 CCCCCTTTAA AATGCAGGTT AGAATAGCCC GAGCCATGAT GGTCGTTCCG AAATCAATTA
 8221 AAATAAAAAA TAGAATCATT TTTTCCAACA CCGCGGGATC CGAGGCGGTG CAGTCGGGGT
 8281 TCGTCAAACC GACGGGAACC AGGGACACTT ACGTGGTGGC CGGACCGTAC ATGAAGTTTC
 8341 TCAACTCGCT GCATCGCGCG CTGTTCCCCG ACACCAAGAC CGCCGCGCTG TACCTGTGGC
 8401 ACAAGATCTC CCAGACCAAC AAAACCCAGC TTCTGAAAGA GCCTCGCGTT CGAGGAAACG AACGTGCTGG
 8461 CGGAGCTGGT GTCGTACGTA AAGACCAACA GCCTCGCGTT ACTGAACGGG GCCATTCTAA
 8521 ACGTGGTTCC GGATTCACTC ATGTCGTACG CGAGGATCAA CTGCAACGGG CCGGTGCTAC
 8581 GGGCATGTGG CCAGATTGAG TTCTACGCCA CGACGCTGCA CTGCCTCACG CCGGTGCTAC
 8641 AGACGATCGA TGCCGAGGAA TACCCACAGC TGCTGGGCTC CGCGGCAATC GCCACACCGG
 8701 TGGCTTACCT GGCAGAAATA CGCGGCCGCA CCGCCCTCAC CGTCCAGACG ACGGCGCGTC
 8761 AGCCGGTTCG CGCCACAGGG CGCCTGCGTC CCGTGATAAC CGTTCCCATG GTAGTCAACA
 8821 AATACACGGG GGTCAACGGG AACAACAACG TTTTCCACTG CGGAAACCTG GGGTACTTCG

WO 00/28040

PCT/US99/26260

```

8881 CGGGGCGCGG CGTGGAACCG AACCTGTGGC CGGAAAGCTC CCCCTTTAAG AAAACGGGCG
8941 TCAGCGCCAT GCTAAGAAAAG AGACACGTCA TGATGACCCC CATTATCGAC CGCCTAATAA
9001 AGCGAGCCGC GGGACAGACA ATCAGCACGT TCGAGGCGGA AAGCGTTAAA AGGAGCGTGC
9061 AGGCGCTGTT AGAGGATAAG GACAACCCTA ACCTATTGAA GTCGGTAATC TTGGAGCTTA
9121 TACGACACCT GGGGAAGGGC TGCCAGGACT TAAGCTCCGA GGACGTGCAA TATTACCTCG
9181 GTGACTATTG TATGTTGACG GACGAGGTTT TATTTACGTT GGATAATATA GCACAGTCAG
9241 GCGTGCCGTG GACTATCGAG GACGCGGGTG CCCTAATAGA GGATCGCCAG GACGCAGACG
9301 ATCTTCAGTT CGTAGACAGC GACGATATCG CCACCGCTTC CTGTGAGCCC CCCGAGGAAC
9361 AGCTACCGAC CCCTAGCGCC GGCGCCCTAC TGGCCGGGAA GAAGCGAAAA ATTAACGCGC
9421 TGCTGAGCGA TCTAGACCTT TAGGAAAACC GTGGCAGGCG GGCAACAATG GCCAGGGAAC
9481 TCGCAGCATT ATACGCGCAG CTGTGCGCCC TCGCCGTCGA CTTGAGTCTG GTTATCTTTG
9541 CGGACCCGCG AAGTATCGAC GGTGCCCGCA TTCTAAAAAC AAAACACAG ATAGAGAACC
9601 TGAACCGCGA CCTTCTGCCG CTGCTACGCG AGCAAAACTC GGTAGAGACG TCCAGCCTGT
9661 CGCTCGAAGT GGAGCACCTG GCCAAAAACA TCGAGGACAA ACTCGGCGAG CTGGAGCGCA
9721 GTCTGCGGCA GAGATATTCG AGCCGAGAGC ATTTTGAAAC ACTACACCTG AGACCCGAAT
9781 GTCACATCA CTCTACGTT ACTTTTCAGT TTTACGGGGG CGGGTTAATA CGGTAAACA
9841 TGTGCCTAAT AAACGATGTA GAACGTCTGT GTAAAAGACT AGGGAGTGTG TTTTATTGCA
9901 TCGGTGCAAA CGAAGCTCTG TCCGGATTGA ACCGGTTCT GACGTTTCTG TCAACACTGC
9961 GGGGTATCTC CCCGATCCCG CCCCAGACC TATACGTCAC GTCAGTGCCT TGCGTACAGT
10021 GCCTGAGGGA AATCGAATC GTACCAAATC AGGGGTCCAG TTTACTCGCG GTGTTGGCAG
10081 ACCGACACTG CGATCACCTC TGTAAGAAGG TTAGGGCGGA GCCAATACAC GGCCTGTTTG
10141 AGACAGAACT GAGCCAGCTG GGTCTAAAAG TAACAAAACG TTCGGACGCC ACGCAGCACG
10201 GCGTCCGGTC CTCTGCAGAT CAGTTAAGGG AGTCGTCGCT GGCGGCCATA CAAGATCACA
10261 ATATATTCAA ACGGGTGTCC GCGTCAATCA TGGAATATC CAATCTAATT TATTGGAACG
10321 CCGGGCAAAAC CGGCCTCCAG ACCGGGACCG AAAACGAGTG CTCACAAATG GCCAGACTGC
10381 TAACACACGA GGCCGATATG CACGAGCACC GTGCGCTAAT AACACCCAAA CTAAGCGCGA
10441 CTCACCTCTA CGACTGTTTC CGACCGGATC CCATAGAATC CCTGTTCTGC GGCGGTCTTT
10501 TTAACCTCTA AGACGACACC ATAAACGCAC TGAGCCGGGA TTGCTCCGTG ACGTTCTTTC
10561 AACAGGCAAA CTATACCAAC GTTATGCGAA AAAAAACGA GCTGTTTACC AGACTCAATA
10621 GCATCCTGCG TCAGGGGAGC GCGGGATCGC AAAAAACGGC CACCCCTCG GAGCCACGGA
10681 CCACCACCGT GCGGCAACCG GCCAGGGACG GCTTTAAAAA ACTAACAGAG TGTCTGCAGA
10741 AACAGTACAT GAAAAAGGTG GCCAGGGACG GCTTTAAAAA ACTAACAGAG TGTCTGCAGA
10801 CGCAGAGCGC GGTGTTGGCA AACGCACTCT GCATGCGCGT ATGGGGGGGC GTCGCCCTACG
10861 GCGAGGCGTC CGAGCTGGTG AACCATTTTC TCCTCAGGCG GCGCTTCGTC GCGCTTCCCT
10921 GGGAGGCGCG CTGCCGCTCG GATCAGATTT TATTCGAAAA CTCAAAGTAC ATTAATAACT
10981 CACTATATTC CCAGCGCCTC AGTCGCGAAC ACGTAGAGAT TATCACGCTG CAGTTTTACG
11041 GCCTGATAAC CGGCCCCCTG ACGCGCCAGA GCGATCTCTT TCCCGGCCCC GCCAACGTCTG
11101 CGCTGGCCCA GTGTTTCGAG GCGGCCGGAA TGCTTCCGCA TCACAAGATG CTGGTGTGAG
11161 AGATGATATG GCCCCAGATT CAACCGAAAG ACTGGATAGA CCAGACATTT AATCGTTTTT
11221 ACCAACTTCC CGAAGGTGAT CTCAACGCGG TACAAAAGTC CGCCTGGTGC TTTATACGAG
11281 AGCTCGTCCT CTCGGTGGCG CTTTATAATC GCACGTGGGA AAAGACGCTG CGGATATTTT
11341 CCCTAGCGCG CGAGAAACTC TCCATCTCCA ACCTAGACGT TAAAGGCCTG ACGTCCGGCC
11401 TGTATCTAAC GTACGAGCAA GACGCGCCGC TCGTTCTAAT TTCTCAAAT ACCGGCTGGA
11461 TATTTAAAGA CCTGTACGCT CTTCTGTACC ATCACCTGCA ACTGTCCGAC GGCCATGATG
11521 ATAATAACC GAACGCGTCG TCTCTGCGG GCGTGGGTG TGATAATCGC GATCGGCACG
11581 GCGGTTGGCG AAAACGTCAC CACCCCAAG GGCGCGACCA CCACCGCGAA GCCAACGCCG
11641 GGCCCGTCGA CGCCACACC TCCCGAGAAC CCACCTAGGG CCGAGGCGTT TAAGTTTCGC
11701 GTGTGACGCG CCTCGGCCAC CGGCGAACTC TTCAGTTTA ACCTGAAAAA AACGTGTCCG
11761 GGCACCGAGG ACAAGACGCA CCAAGAAGGC ATCCTGATGG TGTTTAAAAA AAATATTGTC
11821 CCGCACATCT TTAAGGTCAG ACGGTACCGC AAGGTGGCCA CTCGGGTGAC CGTCTATCGA
11881 GGGTGGACCG AGACCGCCGT GACCGGCAAG CAAGAGGTCA TCCGACCGGT GCCGAGTAC
11941 GAGATCAACC ACATGGACAC GACCTACCAG TGTTTCAGCT CCATGCGCGT AAACGTCAAAC
12001 GGCATAGTAA ACACCTACAC GGACAGGGAC TTACTAACC AGACCGGTGCT TCTGCAACCG
12061 GTCGAGGGGC TCACGGATAA CATCCAGCGA TACTTCAGTC AGCCGGTGCT GTACACGACA
12121 CCGGGATGGT TTCCGGGAAT TTACAGGGT AGAACCACGG TCAACTGCGA GATCGTGGAC
12181 ATGATCGCGC GTTCGGCGGA ACCGTACTCG TATTTTGTC CCGCCCTGGG AGACACGSTA
12241 GAGGTGTCCC CGTTCTGCCA CAACGACTCA ACGTGCTCGG TCGCGGAGAA AACCAGAAAC

```

12301	GGCCTCGGCG	CCCGCGTGCT	CACAAATTAC	ACCATCGTCG	ACTTCGCGAC	CCGCCAGCCC
12361	ACCACCGAAA	CGCGGGTCTT	CGCCGACTCG	GGAGAATACA	CCGTATCGTG	GAAGGCGGAG
12421	GACCCCAAGT	CGGCGGTCTG	CGCGCTGACG	CTCTGGAAAA	CCTTCCCCAG	GGCGATACAG
12481	ACGACGCACG	AGGCCAGCTA	CCACTTCGTG	GCCAACGACG	TGACGGCGAC	CTTCACGTCC
12541	CCGCTCTCCC	AGGTAACATA	CTTCACGGGC	ACGTACCCCT	GCCTCAATGA	TGTTATTTCAG
12601	AAAACCTCA	ACGCCACCAT	CAAGAAGCTG	TCCGATACCC	ACGCAACAAA	CGGATCGGAG
12661	CAGTACTACG	AAACCGAGGG	GGGTCTGTTT	CTCCTGTGGC	AGCCGTAAAC	GCCGCTAAGC
12721	CAGCTGACG	AGATGCGCGA	ATTAAACGGC	ACCACGCCAG	CACCCCCAC	CACAACCTCA
12781	ACCGCCAACC	GCCTTCGAAG	AAGCGTCGGT	ACGAACGAGC	AGGCAACGGA	CGACCTAGCG
12841	GCGCCCCAGC	TGCAGTTCGC	CTACGACAAG	CTCCGCGCGA	GCATCAACAA	GGTGCTGGAG
12901	GAGCTCTCCA	GGGCGTGGTG	CCGAGAACAG	GTGAGGGACA	CCTACATGTG	GTACGAACTG
12961	AGCAAGATTA	ACCCACACAG	CGTAATGACG	GCGATATACG	GGCGGCCGGT	GTCGGCCAAG
13021	TTCGTGGGCG	ACGCCATCTC	CGTGACGGAC	TGCGTGGCGG	TGGACCAGGC	GTCCGTACAG
13081	ATCCACAAGA	GCCTCCGCAC	GTCCACCCCG	GGGATCTGCT	ACTCGCGCCC	CCCGGTCACG
13141	TTCAGGTTCC	TCAACAGCAC	CACGCTGTTC	AAGGGCCAGC	TGGGACCCAG	AAACGAGATC
13201	ATACTGACGG	ACAACCAGGT	GGAGGCGTGC	AAAGAGACGT	GCGAACACTA	CTTCATAGCG
13261	AGCAACGTAA	CCTACTACTA	CAAAGACTAC	ATCTTCGTGA	AAAAAATTAA	CACCTCCGAG
13321	ATATCCACCC	TCGGTACGTT	CATCGCCCTG	AACCTGTCGT	TTATAGAGAA	CATAGATTTT
13381	AGGGTCATCG	AGCTGTACAG	CCGCGCGGAG	AAAAAGCTGT	CCGGGAGCGT	TTTCGATATA
13441	GAAACCATGT	TCAGGGAATA	CAACTACTAC	ACGCAACGCC	TGGCGGGACT	CCGGGAGGAC
13501	CTGGACAACA	CGATCGACCT	GAACCGCGAC	CGCCTGGCCC	GCGACCTGTC	CGAGATAGTC
13561	GCGGACCTGG	GCGATGTCGG	CCGCACGGTC	GTAAACGTGG	CCAGTAGCGT	GATAACCCTG
13621	TTCGGATCAA	TCGTGAGCGG	GTTCAATTAAC	TTTATAAAGA	GTCCGTTCCG	GGGCATGCTC
13681	ATGATCCTGG	TGATTGTGGC	GGTCGTCTTG	ATCGTGTTTG	CGCTAAACCG	GCGACCAAC
13741	GCCATCGCCC	AGGCCCCCAT	CAGGATGATC	TACCCCGACA	TAGACAAAAT	GCGACCTCT
13801	GGCGGTAAAG	TCGACCAGGA	GCAGATTAAA	AACATTCTCG	CCGGCATGCA	CCAGCTACAG
13861	CAGGAAGAGC	GTAGGCGGTT	AGAGGAAACG	CAGAGGTCAG	CGCCCTCGCT	TTTCCGGCGC
13921	GCGTACAGCG	GACTAAAACG	TCGCTTTAGG	GGATATAAAC	CGCTGGAAAA	CGAAGAGGCT
13981	CAAGAGTATG	AAATGAGCAA	ATAACCACAC	CCACACGCCT	GTACTTGCCG	CCCGCCAGAG
14041	CCGCGCGGCC	AATCGATTTC	CGCACCCGGC	CGGTCCCCGA	CACCTCTAG	CGCCCCCGGG
14101	CGTCCGCGGT	CTGTATCAAT	CATGGATTTT	TTTAACCCGT	ACCTGGGCCC	TCGCGGACCA
14161	CGCCCCCACT	CACACAGAGG	CACCGATGCT	CCCGCCCCTG	CCGGCGCCGG	AGCCGGTTCAG
14221	CCGCCACCAG	ACGTTTGCAG	GCTCATCCCC	GCCTGCCTCC	GAACGCCAGG	GGCAGGCGGG
14281	ATGATCCCCG	TCACGATCCC	GTTCCCGCCA	ACGTACTTCG	AGAACGGTGC	TCGCGGAGAC
14341	GTGCTGCTCG	CCAACGAACG	GTCCATGTGG	ACGGCGCGCG	ACCGCAAGCC	CGTCGCCCCG
14401	GACCCCAAG	ACCAATCCAT	ACCATTTTAC	GCGTACGACG	TCGTTGAAAC	AACGTACGCG
14461	GCGGACAGGT	GTGCCGAGGT	ACCTAGCCGC	TTCCAAACGG	ACATTATCCC	AAGCGGAACC
14521	GTGCTCAAGC	TCCTGGGGCG	AACCGAGGAC	GGCACCAGCG	TGTGCGTGAA	CGTGTTCCGT
14581	CAACAGGTAT	ATTTCTACGC	GAAGGTTCCA	GCCGGCATT	ACGTCACCCA	CATCCTCCAG
14641	CAGGCCCTCA	AGAACACAGC	CGGCCGTGCC	GCGTGCGGCT	TCTCGACCAG	AAGAGTGAAC
14701	AAAAGAATTC	TCAAAACGTA	CGACGTCCCG	GAGCATCCCC	TCACGGAAT	CACGCTATCG
14761	TCCGGTTCCA	TGCTCTCGAC	CCTCAGCGAC	CGCCTCGTCG	CGTGCGGGTG	CGAGGTGTTT
14821	GAGTCAAACG	TGGACGCCGT	TCGCCGGTTC	GTTCTGGATC	ACGGGTTTAC	CACGTTCCGG
14881	TGGTACTCGT	GCGCGCGCGC	CACGCCCCGC	CTGGCGGCCA	GAGATGCCAG	GACGGCCCTG
14941	GAGTTTGACT	GCAGCTGGGA	GGACCTCAGC	GTTCAAGCGG	ACCGCAGCGA	CTGGCCCCCG
15001	TACCGCATCG	TGGCCTTTGA	TATCGAGTGC	ACTGGAGAGG	CGGGATTTCC	GTGCGCCACG
15061	CGCGACGGCG	ACGCGGTGAT	CCAGATCTCC	TGCGTCTTCT	ACACGACCAG	GGAAGGCGCG
15121	CCCAATCCGC	CAAACATACT	GTTCAGCGTC	GGGACGTGCG	ACCCCATCCC	GGACACCGAC
15181	GTTTTGGAGT	TTCCGTCGGA	ATATGACATG	CTGGTGTCGT	TCTTCGCCAT	GATCCGCGAC
15241	TTCGAGGTGG	ACTTTTTTAAC	CGGCTATAAC	ATCTCAAAC	TCGATCTCCC	GTACCTAATC
15301	ACGCGAGCGT	CCCAGGTGTA	CAACCTTCGA	TTAAACGAAT	ACACAAAAAT	AAAAACCGGC
15361	TCCATCTTTG	AAGTTCACGA	GCCCCGTGGC	GGGGGAGGGG	GTTTCATGAG	GTCGGTCTCA
15421	AAAATTAATA	TAGCGGGCAT	CGTCCCCATA	GACATGTACC	AGGTGTGTCG	CGAAAAGCTC
15481	AGCCTCTCCG	ACTACAAACT	GGACACGGTG	GCCAGGCAGT	GTCTGGGTGG	GAAAAAGAG
15541	GACGTATCGT	ACAAGGACAT	TCCCCCTCTG	TTTCGCTCAG	GTCCGGGCGG	CAGGGCTAAG
15601	GTGGGACGCT	ATTGCGTGAT	GGACTCGGTC	CTGGTGATGG	ACCTCTTAAA	AATGTTTATG
15661	ATACACGTGG	AGATTTTCGGA	GATAGCCAAG	CTGGCCAAGA	TTCAGGCCAG	GCGCGTCTCT

15721	ACGGACGGCC	AACAGCTCCG	CGTGTTCTCC	TGCCTGCTGG	AGGCCGCGGC	CAGGGAGAAC
15781	TTTATCCTCC	CGGTTCCAAC	GCCCCAGGGA	CAGGGGGGCT	ATCAGGGCGC	GACGGTGATC
15841	AACCCCATTC	CGGGGTTTTA	CGACGAGCCG	GTCCTGGTGG	TCGATTTTGC	CAGCCTGTAC
15901	CCGAGCATCA	TCCAGGCGCA	CAACCTGTGC	TACTCCACCA	TGATACACGG	ACGAGACCTG
15961	CACCTGCACC	CCAACCTGAC	GCCGGACGAC	TACGAGACGT	TCGTGCTGAG	CGGCGGACCG
16021	GTACATTTTG	TAAAAAACA	CAAGCGGGAG	TCTCTGCTGG	GAAGACTGCT	AACCGTGTGG
16081	TTAGAAAAGC	GAAGGGCGAT	CCGGCGCACC	CTGGCGGCGT	GCGATGACCC	GTCGCTAAAA
16141	ACCATCTTAG	ATAAACAACA	GCTGGCCATC	AAGGTGACAT	GTAACGCGGT	TTACGGGTTC
16201	ACCGGGGTGG	CCAGCGGCCT	CCTCCCATGC	ATTAACATAG	CGGAAACCGT	GACGCTCCGG
16261	GGGCGCACGA	TGCTGGAGAT	GTCAAAGTCT	TACGTGGAGG	CCCTGACGAC	GGAAGACCTG
16321	CGAACGCGTC	TCGGTCGCGA	GGTGACCGCC	CGTCACGGCG	CGCGGTTTCG	CGTCGTCTAC
16381	GGTGACACCG	ACTCCCTCTT	TATCGCGTGC	GACGGTTATT	CCGCGGAAGC	CGTTTCCGCT
16441	TTCTGTGACG	ATCTGGCCGC	CAGGATCACT	GCGGACCTGT	TCCCCCACC	CATTAAGCTA
16501	GAGGCGGAAA	AGACGTTCAA	GTGTCTGTCTG	CTGCTGACGA	AAAAGCGCTA	CATCGGGGTC
16561	CTATTGAACG	ACAAAATGGT	CATGAAAGGG	GTCGACCTCA	TTCGCAAAAC	GGCCTGCAAG
16621	TTTGTCACGG	AGCGATGCCG	CGCCATCCTG	GACCTGGTGC	TCCACGATCC	GGAGGTCAAG
16681	GCTGCGGCGC	GGCTGTTGTG	CAAGCGGCCG	CCGCACGCGG	TATACGAGGA	GGGGCTGCCG
16741	GCTGGCTTTA	TAAAAATCGT	AGAGGTCTCTC	AACGCGAGCT	ATCTGGACCT	CCGAAACAGC
16801	GTCGTGCCCA	TCGAGCAGTT	AACGTTCTCC	ACCGAGCTCA	GCCGCCCCGT	CTGCGATTAC
16861	AAGACCACCA	ACCTGCCCCA	CCTGGCGGTG	TACCAAAAGC	TGGCGAGCAG	GTGCGAGGAG
16921	CTGCCCCAGG	TGCACGATAG	AATCCCCTAC	GTGTTCTGTTG	ACGCGCCCCG	GTCCCTAAAG
16981	TCGGACCTGG	CCGAACACCC	GGATTACGTC	AGACAGCACC	AGATTCCTCGT	CGCGGTCGAC
17041	CTATATTTTCG	ACAAACTGGT	GCACGGCGCG	GCCAACATCC	TCCAGTGTCT	GTCGCGCAAC
17101	AACGCGGACA	CCACGGTGGC	CATCCTCTAC	AATTTTCTCA	ACGTCCCGTA	TAAGCTGTTC
17161	TCGTGAACGC	CAATTGGAGA	ACGCCAACAT	AAGACGCCGC	GCCAGCGGAG	TCCGAGGGGA
17221	GAGCTCGAGC	GGCGAGGAGC	GACCAACGGA	GACCGCCACC	ATGCTGGTTA	ACGAACTGTC
17281	GGTGGTCCCTC	GGCGACTGGG	AGGTGACTTT	TCACCGGGGT	AGATTTCAGCT	TCGTCAACCT
17341	CACCCGCTTG	CAAACGTTCA	AGGGCCACGG	GGGCTACGCC	AGGGTCCGAC	TCCCCTTCTC
17401	GCTCGACCAG	TTACTCCACC	AACATTTTCGC	GTTTCGGACTC	GTGACGCGTC	TCAAGGAACT
17461	GCCCCCTTTC	TCCGACTGCG	TGGCCCTTAT	CGCCCCGTTG	GATTCCGGCG	GCGACGCGGA
17521	CGCGGCGCGC	GTGGCCCCCG	GGTTCGTGCT	GGACTCCTCT	CGCCCGCTGA	CCGTGTGGGT
17581	AAACGCGAGC	GGGCGGCACA	CGATCCGGTT	CTGCCTCCTC	TTTCTAAAGC	CGATCGGACCT
17641	GGAGCGCGCG	GTCACGTACG	TCTTCGGGCA	GAACGGCGGC	GCGCGCTCGG	AGGGCACCCC
17701	AAAGCCCACC	TGCGCGACCG	AAAGCCTGCC	CGGTGGACCC	CTGCGCGTCT	CCGGCGAGGC
17761	GTCTCAGACG	TCGCCCCATT	CTTTCGTTGC	GTATTTTCCC	ACGGCCAACT	CGGTGGCCTG
17821	CCTAAGCCTG	TTGCGGTTAC	AGGTGAGGCC	GTTTTCGGAT	GACGCGGCGC	ACAGGGACGC
17881	GCGGATCTCC	CCGAAATACG	TCACGTTTAG	TAACCTCCGG	GGTAACGTCT	GCAAGGCGTC
17941	CGTTCACACG	CTGTCCCCGT	CGCGGTGTAA	AACGGCGCAA	ATGGAAATCA	TCTACGCTCC
18001	CGGGGACCCC	AACGCCGAGA	TAGTCCTGGG	CCAGTCCGGA	CCCGTCTCTG	CCACCCACAC
18061	CGGCGGCCGC	GTATTGGGGG	TCTACGCCGA	CGCCGAAAAA	ACCATCCAAC	CTGGAAGCTC
18121	CGCGGAAGTC	CGGGTTACGT	TAATCTTCCA	ACAGGGAGCG	GCCGCTCGGG	GTCGATCTGGC
18181	GTTTCTGGTC	ACGGGCGTGG	CACCGGAGCC	CCTATTCTGT	GTCACCCCGG	CACCTCTTGCT
18241	TTCCGGTTTG	ACAACCCACC	TGCGCCTATT	CAACCCCAAC	GGTACCCCCA	CGACTATAAA
18301	AAGAGACACC	CTTGTGGCCG	CCGCCGCGCC	CTGCCCCGTG	GTGCGATTAA	GCTCCGCCGA
18361	CGACGCGCCG	CGAGACCTCG	TCGCGTCACC	AGACACCGGG	GCGCTCTCCA	TTAACGCGTT
18421	CACAATCCCG	GTCGGTTTCC	CAGGGGTGGT	CTCGGCGGAG	TGTCACGTGT	CCCTACGCGA
18481	CAACGGGGTC	CACGAACGCA	TGAACCATTG	ACGGCAACGA	TGGGAACACC	GGTGCGTTTC
18541	TTTCGCGGCG	AGTGGCAGAC	CTCGAGTCTA	GTGGACAACG	GCACGCCACG	GTACAGCTCC
18601	CTGGTGTGGG	CCGCCACTAT	TCACGACGGC	TACCTGACAC	TGGTGAACAG	GTCAGAGCTG
18661	TGCGTCACGG	AGAGGTCTCC	GTGTCTGCCG	GCATGCCCCA	GCATCGGGAG	ACTGGTCGGG
18721	AAGAGGTTTC	CCGGCTTCGC	CTTTGCCAGC	GCCACTCTGG	GCGATCGGGG	AACACGCACC
18781	GTGTTCTACG	CGTTCGGTCA	CCTGCGGATT	CCACTGGACA	TAGTACCCGC	CGTGGTCGAG
18841	CGCGCGGATC	GCGAGCTGGT	CTGCGGGT	CACGCTCCGC	AAACAACGCG	GGTGTGCGGA
18901	TACGGACTTA	AGGTATTCGT	GGCGATCGTT	ACGGTGGTGC	GCCCGCCCGG	GGTGTTCCTA
18961	CACTTTCCAC	AAGACCGCGT	TCCGATCGCG	CTGACAGACG	CGTGCAGCCA	GGAGGGCTCC
19021	AGGCTAACCT	CTGAAGAGCC	GTGGATAAAA	ATTCAAGGCT	TTCCCGTCTT	ATCTGACGAG
19081	ACCGCGCACC	CATTTCTCTT	AACCCAGAAG	ACCAAGCCCT	TTACCGAGCG	AAAGTTTTGC

19141	CGCCTGATCA	TGGACAACGA	CCAGCGCAGC	GCCGTCAACA	CCGTCTACCT	GGGAAAGCAG
19201	CACGTGAGGG	TGACCGTGAC	CCGCCCCCGG	GAAACAATCG	TCACCGACGG	CCCCGTGACG
19261	GCGACCCGTG	CCCTCACCAG	TAATGCGCCA	ATCGCCTTTC	GCCACAACCC	ATACTTTGAA
19321	CTCCCGTGTT	CGTCCACAAC	GGCGATATTC	ACGCCCGTGG	TGTACGTGGG	CCTGACCGTG
19381	TGCATCCAC	CCAAGTGTAG	CAAATTCGTA	AGGTACGGTA	ACACCTACGT	CTCGGCATTT
19441	AACCGCAAGC	TGACGGCGAT	TATTAGCAAT	CACGCCACA	ACGGCGGGTT	CCGGATTGAG
19501	GAATGCGAGT	GGCCACCGAA	CCGGGAGATA	GAGATTTTGG	TAACCAACGT	GTCCACAGGCC
19561	CCGGTGTACA	TCAGCACCGG	GACGCAGCTG	GGGCAAGCCA	TCTTCGTGTT	CGCGCCGCGG
19621	TTCGGTGGCC	CGGCGAAACT	GCGGCAGCTC	CTCGGCCACC	GATCGCGCGC	CCTGGAGCTG
19681	CCGGGCGGGG	TGACAGTGGA	CAGCCAAAAA	CTGTGTAGGT	TTGAGACCAT	GTACCTGTTT
19741	TCCACGTAAA	TTACTAATAA	ACCGTTTGCT	CGTATCGCTC	ACACAACGCC	AAACCGTCTC
19801	TCATTCTCGG	GGTCGCGCGC	CTCGCGAACA	CACAAGGTGG	CTCAAACACC	CCCCTCCCGC
19861	ACCTCTGCCA	CACAAAACCA	GTTAACGCCT	TCCGTTAGAT	GCAGTTTATT	TATTATTTTA
19921	TTACATCATA	GCTATTGCGC	GGCGCCCGTC	CCGCAAAAAC	ATCTGTAGAT	ATTCCAGTAT
19981	GCGAAACGCG	CTGAGAACAA	CGTCCCGGGG	GCTCTGCCCT	CCCAACGCAC	GCACGGTTTT
20041	TTCATTAGAC	TCCGCGCCAC	CTATCTTGTT	ATTTACGGGA	AGCTCCTCAA	TTAGAGAGTC
20101	GAGGGCGGAC	AGCACCACGG	TCACCGCGGA	GCCAATGGCC	GCGGCGTCCG	CGTCCCCGGG
20161	CGCGTCGTCC	AGCAGCATCC	TCAGTCGCGT	CAGGTAAGTC	TCGTAGGCC	GGAGCCCGCG
20221	AACCATGGCG	TTCATACACT	CGGCCCCGCG	AAACTCGCGG	CGCTGGCACT	CAACGTTAGA
20281	CATCAATATA	GGGAAGTGAA	CAAACGACAT	GATGCGCGGG	TACTCACGCA	CCCGACAGAG
20341	AGTGGAGTGG	TGGCACAGGT	AAACGACCA	GCGCTGTATG	TTTAACCCCA	CTTCAGACAG
20401	GCGCCCCCTG	GTCCTGTCAA	GAGAGGCGCG	GTTGCCGGCC	CACTGGGGGA	GAACGTTAAT
20461	TCCAGCGGCA	GTCGGGGGAG	GCGCCAGCGT	AGGGCTGGCC	GCCCAACACG	ACAGGTAAAA
20521	CAGACGAAC	CAGACAGGGA	ACATGACCGG	TTAAATTACT	CGCTTACAAT	CGCGGGCGGC
20581	GGCCGGTCAA	CGCCAGGTCC	ATTA AAAACA	CACCGGCCGC	CAACCCCCAA	CGCGGGGCCG
20641	CGCCCTGGAA	CGCGGTTCC	TCCAATCGCA	AAGAACC CGG	TCACAAAAG	GGCTCGTTTT
20701	GAACCCATTT	TGTGCCATCG	GGTTTCGTTT	TCAGATACGG	AAACGGCTCG	TCCAAAACA
20761	CCCAACGGGG	GTGTGCTCAA	ACGGCCATCT	CCATCTCTAT	GTGGGGATGG	GGTCTGTAGC
20821	CCTCGAGACT	CAGATCCGCG	CGCGTAAAGT	CCTCCAGACG	CGCCACTTT	TCAAAATCT
20881	TCAGCCGCGG	AAACGGACGC	GGGGTCCTCC	GCAGCTGAAG	CAGCAGGGGA	TCAACGTGGT
20941	TGTTGTAAAC	GTGGGCGTCA	CCCAAGGTGT	GCACAAAGTC	TCCCGGGGTC	AGGCCCGTGA
21001	CGTGAGCGAT	CAGATACGTC	AGGAGGGCGT	AGCTGGCGAT	GTAAACGGG	ACCCCGAGGC
21061	CCATGTGCGC	GGACCTCTGG	TACAGCTGGC	AGGACAGCTC	CCCCCGAGCC	ACGTAAACT
21121	GACACAAAAC	GTGACAAGGA	GGGAGAGCCA	TCCGCGCGAG	GTCCGCGGGG	TTCCACGCGC
21181	ACATAACGAT	GCGCCGATCG	TGGGGCCGCC	TGTTAATTAG	ATCCACCACG	TAACGCAGCT
21241	GGTCCACCCC	CTGACCCTCG	TAGTTGGCGT	CGGCCCCCCT	GTACTCCGCC	CCAAAATGTC
21301	TCCACTGGAA	CCCGTACACC	GGCCCCAGAT	CGCCCTCGCG	GCGGTCCCGG	AAGCCCTGCG
21361	CCGCCAAAAA	GGCGCGGGAC	CCGTGCGCGT	CCCAAATTTT	TACGCCGCGG	CGCGACAGTT
21421	CGGTGGAGTC	GGTGGAGCCC	CTGATAAACC	ACAGCAACTC	CTCCACGACG	CCCCTCCAAA
21481	ACACCCTTTT	GGTGGTTAAC	AGAGGAAACT	CGTCCCTGAG	GTTATATCGG	GCCTGAAGCC
21541	CGAACACGGA	CCTGGTGCCC	ACGCCCGTCC	TGTCCTCCCT	CTGCACGCCG	TGTTTAATAA
21601	TTAAATCCAG	GTGCGCCAAG	TACTGCAGCT	CGCCGTGGTC	GCCGCGGCAC	GCGCAGCGGA
21661	CGGCCGCGGC	ACCTTCGGGT	GCGGAAAAAA	CCCGGAGTCG	TGCGGCCCGG	ATTCCAGCCA
21721	CGCAAACGGG	TATAATTTTT	TTAACGTAGC	AGATAACGAG	ATGCACCAGG	ACAATCATAA
21781	TTACAACCGA	GGTGCTTTAC	AACTATAACC	GTAAACGGCT	GAAGACGAAA	CTTATTTTAA
21841	AGGCAGCTTG	GGCGGGGCGG	ACCAACAGCG	CGGCCCGGCT	GTTAGCGAGT	AATAAACCCA
21901	CGTGGTCTCC	CCAAGCGTCT	CCCCGAGCGT	GAGCGTCTCC	CCAAACGCCA	AAAACAACAC
21961	AGATAATAAA	ATAAATAACA	TGTTTATTTT	TTATAAACTT	AACGCGCGAT	TATGCTTCTT
22021	AACAGGGGCC	AATAGAAGCA	ACGTGCGAGG	CGGCATTGCG	GCGCTCAAAG	GCAACCGCAA
22081	CACCGGCGCT	CGTAACAGCG	TAAACAAACA	ACTATTAGCC	ATTCGTAACC	GTAAATCCA
22141	ACCCTCTGCG	TCCCGAGCCA	TTCGCCCAGC	TGCGTCTACG	TCGAGGGTGT	TTCTAAGTCG
22201	CATTTTGAGC	CCTTGGCACG	GCCGCGTCTG	CGTTAATGGT	GTTTCTAAAT	CCCGCTGCCA
22261	AGGCCCTCTT	CGGAATCGTC	AATCAGGCTG	CGCCGGGTTT	TTCTGCCCTT	TTTGGGACGC
22321	TTGTCCACCG	CCTGAAGCAG	TTTCTTCACT	GCGTCGTCCC	CGGGATTGGC	ACACAGCTTT
22381	TTACCGCGGC	GAGTGTTTAA	TATCACGGCG	TCCACCGAGC	ACTGCGACGA	GGTGTGGGAG
22441	TAAGAGACCA	CTAAACGGGG	TGGCGGCAGA	TGAGTTACAT	ACCCCAAACA	GCAGAGTTTC
22501	GGCGCGGGTC	CGCTCATGGA	GCCCATAGGA	AAGGCATAAT	CAACTACACA	CGCGAACACC

WO 00/28040

PCT/US99/26260

22561	GCAAAAAAAAA	CGCACACGAA	AAGGCCCTC	ATGGTGACAA	AAACACAAAA	CAAAGACGGG
22621	GTCGCTCGTG	CGTTGCCACC	AGCGCCACGC	TCGCCGTGCT	CGGCCACGGT	TGACGGCGTC
22681	CATTAATACC	CGCGGCCCGG	GCCCGCCTCG	ACGGAACCA	GGCGTGGTTA	GCCACCTGAC
22741	GCACGTGCCT	CCCGTCCAGA	TGTGGCATTG	CGAGTCCCAA	AACGGGCGTG	TCTAACTACG
22801	GTCGCCCCGG	GGTTCAAAGA	ACGGGGATCC	CCCAAACAGG	TAAAAAGCTT	TTTGTCCAAA
22861	CAGAAAGCCA	ACAGCAACCG	AAAGGAATCT	CCAAAACAAG	CAAGGGTCCC	GTGCCGGCGA
22921	TAAACGAAA	ATTTCCCTCA	CCTAAACACA	CGCGCCGCGT	AAACTGTAA	AACACGCAAT
22981	ACTTCCTAGG	CCTGTGTTTA	ATAAAACACA	CAAGGGTTGT	AATTTGCGCG	GGCCCTTTGG
23041	GCCCCGCGCG	TCTGGGGGTG	CGTTGTCTCG	TTGTGGTTTCG	CAATCACCAC	CCCGCTTGCC
23101	CGAAAACAGG	GCAACAACCC	CCTGGCCTAG	TTTTTTAAAA	ACTTAACACC	GGCAAGGGGA
23161	GAGGGAGAAG	GGGTGCGGCT	AAATGGGCTG	TTAGCAGCCA	ACCGCAGCGG	GGAAAAAAGG
23221	GGGCAACGCG	CGGGTTAACA	CAAACAGCAA	CAGGCGCCAA	ACCCAATATA	ACACAACGCA
23281	TATTCCGTGT	GTTTCGCGGG	CCGGGGTCGG	TACGGCTAAC	CCGCGTTGGG	CGTTTGACAA
23341	AGCACGCCCC	CGCCCTGCAC	CCGGCTCCCC	GAGGTCACCG	AAGGGTCAGG	AAACATAGTT
23401	TTCACGGTCG	CCAGTCGCGC	GCGTGGCAAC	ATCTTTCGGT	GCCCTCCGAA	CGACCCGGAA
23461	AAATCCCCGC	CGCGCCGGGT	CGTTCGGAGG	GCACCGAAAG	ATATCCCCAA	ACGCAACCTA
23521	AAGCATCATG	TTTGGGGTTT	CGGTGACGCG	CGCCGCAGAG	GAGGCCGGTG	GTGGCGCTGG
23581	CGAAGATAGT	GGCCGCAGAG	CACGGGTTC	GGTAGTGACG	CGCCTGGACG	CGCTCCACCT
23641	GGCAGCAGGC	CAAAAACACG	GGCGCCGCGA	GCGGCCGGCA	GGTGGCGCCG	CGCTTTCCCC
23701	CACGCCGCGA	TTTGGCAAAA	TGGCCGACCG	GCAGCGCCGG	TTGGACGCGG	CGGACGTCAA
23761	TCACGACGGA	GAGAAGCGCA	GTTGGTCAGT	TGTCCCGTCA	ATCACCAGAG	GCCGCGCCGG
23821	TTGGCGGATA	ATATGAAACC	GGCGCGGCCA	TTGGACGCTG	GCGGCAGCCA	ATGGGCGCGT
23881	TGGGTTTTGT	TTACAAGTTC	CCTATATATA	TTATATTATA	CCTTCCCTGT	TAAGGGAATC
23941	CCATGTTCTT	AAATCTAATC	AGCTGGGTTA	TATAATTAGA	ATATCAGTAA	TTACTATTAT
24001	TACTGTATTA	TTTATTAAAT	TATTTATTTT	ATTATTTATT	TAATAAATTA	ATTCTTGCGT
24061	TATTATGTAA	TCAGATACTG	GGAAATCTAC	TCCAGTTTAA	ATAAAAATAA	ATAATTAATT
24121	CTATTATGGT	GGGGGTCTTA	AATATTGTAC	AAAACAACAA	TATTTTTTAA	TATTTTACAC
24181	TAAAAATGCT	CCCATTTTAC	TTGTGACGTA	CATGTTAGGA	ATGTGGGAGT	GGTTTGTAAC
24241	TATGTTTTCA	AACAACACCC	TTTTGGGCGG	CTGAAACTC	ATATAAGCGG	AAGGCTCGGC
24301	GTTAATTGCC	ACTGGCCGCT	AACCAGTCCA	CCTTGCCAGT	TGGAGTTTTA	TTGCTGCTTA
24361	TGGCTTTACC	TCGCATTCCG	GGCACAAGCT	GATTTACGTA	GCACGCATTG	GGGGTTTAAC
24421	CCGGTTGAAT	TTAGTGGTTT	GCACGTGTAA	AAAAGCCAC	CGAGGCTTGG	GTTTAAGCGT
24481	TTAAAGCGTT	GCTGGTTTTA	TAACATGCGA	TTTAATTGCT	ATGGGAGCTA	GCTTGATTC
24541	CGCATGCTTT	CGGTTTAGTA	GTTGTACAAA	ACAGAATTGT	AGCCCGCAAA	TTGTTACTGG
24601	TACCCAAAAC	GGCAAGCCCG	CCTAACACGC	CCCGCGCTGC	GGCTTTTGTT	CCTAGCCCGC
24661	TCGCAATACA	ATCGAGATTT	TAATTTAAAA	TGGGGCAATG	GCGTAGCGCA	AATTTAAGCG
24721	CGTCAAAAAT	TTAAAATGGA	CTAACGTAAC	CGGTGCTTTT	AGTGACCTAT	GGCGAATTTT
24781	AAAATTTAAA	GCCGTGGGTT	TTAACACAGA	GCTGCCAGCT	TGTAATACGT	TGCATATACA
24841	GTGCTTTTGT	GATTTTATGG	TTAAGTGGAT	TTTAACATTG	AATTTTGTA	TGGTGTACAC
24901	GTGGATTTTT	AAATTGAATT	TAAAATTGTA	ATTACGTGCG	CGTGGATTTT	AAAATTGTAT
24961	TTATGTAACA	TTGTAAATT	TTAACTGCGT	TATGGTTGTA	TTTTGGTTAA	TTATGTAAT
25021	TTTGCTTTTA	GATTTGTTTCG	GGTGTGAATT	CCAGACAGGT	AAGAGCCTAG	CTCCTAATGT
25081	TTGCCTTGCC	GCCTAGCTCC	TAATGTTTGC	CTTGCCGCCT	AGCTCCTAAT	GTTTGCCCTG
25141	CCGCCTAGCT	CCTAATGTTT	GCCTTGCCGC	CTAGCTCCTA	ATGTTTGCCT	TGCCGCCTAG
25201	CTCCTAATGT	TTGCCTTGCC	GCCTAGCTCC	TAATGTTTGC	CTTGCCGCCT	AGCTCCTAAT
25261	GTTTGCCCTTG	CCGCCTAGCT	CCTAATGTTT	GCCTTGCCGC	CTAGCTCCTA	ATGTTTGCCT
25321	TGCCGCCTAG	CTCCTAATGT	TTGCCTTGCC	GCCTAGCTCC	TAATGTTTAA	CAACATTAAT
25381	GTTTAAGCAC	ACTAAAATTT	AAAGACGTTT	GTGTTGGTTT	TTATGACCAG	CTTGGTACAA
25441	AACCTGCTGG	TGATTTTTTA	CCCAACAAAT	AATAAATAAA	AAAGTTAAAA	CTTATTTCTG
25501	TTGTCTGTGG	TAATTGGGTT	CCCCGAGGGT	CCCGGGCTCC	CCGTTCCCCG	AGGGTCCCCG
25561	GCTCCCCGTT	CCCCGAGGGT	CCCGGGCTCC	CCGTTCCCCG	AGGGTCCCCG	GCTCCCCGTT
25621	CCCCGAGGGT	CCCGGGCTCC	CCGTTCCCCG	AGGGTCCCCG	GCTCCCCGTT	CCCCGAGGGT
25681	CCCGGGCTCC	CCGTTCCCCG	AGGGTCCCCG	GCTCCCCGTT	CCCCGAGGGT	CCCGGGCTCC
25741	CCGTTCCCCG	AGGGTCCCCG	GCTCCCCGTT	CCCGGAGGGT	CCCGGGCTCC	CCGTTCCCCG
25801	AGGGTCCCCG	GCTCCCCGTT	CCCGGAGGGT	CCCGGGCTCC	CCGTTCCCCG	AGGGTCCCCG
25861	GCTCCCCGTT	CCCCGAGGGT	CCCGGGCTCC	CCGTTCCCCG	AGGGTCCCCG	GCTCCCCGTT
25921	CCCCGAGGGT	CCCGGGCTCC	CCGTTCCCCG	AGGGTCCCCG	GCTCCCCGTT	CCCCGAGGGT

25981 CCCGGGCTCC CCGTTCCCCG AGGGTCCCCG GCTCCCCGTT CCCCAGAGGT CCCGGGCTCC
 26041 CCGTTCCCCG AGGGTCCCCG GCTCCCCGTT CCCCAGAGGT CCCGGGCTCC CCGTTCCCCG
 26101 AGGGTCCCCG GCTCCCCGTT CCCCAGAGGT CCCGGGCTCC CCGTTCCCCG AGGGTCCCCG
 26161 GCTCCCCGTT CCCCAGAGGT CCCGGGCTCC CCGTTCCCCG AGGGTCCCCG GCTCCCCGTT
 26221 CCCCAGAGGT CCCGGGCTCC CCGTTCCCCG AGGGTCCCCG GCTCCCCGTT CCCCAGAGGT
 26281 CCCGGGCTCC CCGTTCCCCG AGGGTCCCCG GCTCCCCGTT CCCCAGAGGT CCCGGGCTCC
 26341 CCGTTCCCCG AGGGTCCCCG GCTCCCCGTT CCCCAGAGGT CCCGGGCTCC CCGTTCCCCG
 26401 AGGGTCCCCG GCTCCCCGTT CCCCAGAGGT CCCGGGCTCC CCGTTCCCCG AGGGTCCCCG
 26461 GCTCCCCGTT CCCCAGAGGT CCCGGGCTCC CCGTTCCCCG AGGGTCCCCG GCTCCCCGTT
 26521 CCCCAGATTAC ACGTAAAGT GGTATTATTA GCAAACACAC GTTTTGTGCC GCGGTTTGGG
 26581 TTGTACATAC ACGCGGTGC GCATTGGCCC GCCATGCAA AAAATAACG TTGGGTTTCC
 26641 GAAACGCGTA GGTGCTTTAG TGTTTCATGG CACGTTTTCG TGTCACGGTA GGAGTGGTTA
 26701 GTTTTTTGGT AGCGAATGCA ACCAGGTAGC TCGCCTGACC GGGAAAGGGA ACGTTTTAAA
 26761 CCGCAGTGTT ACCGCGGTGC GGCATACGGT TTAACGTGCA ACTGCCGGTC CCGCGCGTGG
 26821 TACCTTAAGT TTACGTGTAG CAATTATGGC GGCTGTTTCCG GGCCCTCCGC CGCCCCCTGA
 26881 GGAAGAAAAT GAAAATTCTT TGCCAGTTGA CGTTTATGCT ATAGAGGGCA TCTTCTTTA
 26941 CTGTGGGCTC GGGCAGGCGG AGTACTTGCA CCATCCCGTG TTAGCCCTA TTAAGGAATT
 27001 TATCAGCGCC TTCTCAAGG ACAGCGCTCG TAAACGCCAT AGGCCAAGGG ATGCTGCAA TAAACACGGA
 27061 TTACCGCTCT CTGCGGGGAC GCGCTTTGGC CGTGTGGGT CTTGGTGCCT ATGTGGTGGA
 27121 CGGACGCCAC AACTGGGGTC GCGCTTTGGC GTCTTTTAAAC GTTCGCCATA GCCGTTCTAC
 27181 TAAGGTTAAA GACGACGAGC GTCTTTTAAAC GTTCGCCATA GCCGTTCTAC CCGTGTACGC
 27241 GTACGAGGCG CTGGAGTCTC AGTGGTTTCG TTCACACGGC GAATGGGAGG GACTCAGGAA
 27301 TTAAGTGCAG CGAATACTGA GGCATCGCCG CAACGCGAGG AGACACATGT GCTACGGAGT
 27361 TGCGGCTGGT CTTCTGGCGC TAGTGGCGCT GTTTGCCATC AGGCGATAGG TGTGCGTTTA
 27421 ACCGCGTATT CCCCCACCCT GACCTTAAGT GAGCCGATTG TATATGAGAC CAATAAAACA
 27481 AAACAAGCTA ACGTGGTATT CGTTGGAACA TTTTTTATTT GAGCAGTTCC TCGCAGAAC
 27541 TTTTTGTAT CTGTGACACG GGGGCCGGCT GTGCGCTGGC CTCCACGGG CCGCGCGCGG
 27601 ACTGTCCGCA TTCTGGATCG AGGGCGGGC ACGCGCCAGC GCGGGGGGCA GAGGCTGAAG
 27661 GAATGGCGTT TGACATTACA GATTCTTGGG CGGCGGGGGC TGGAGTTGCC GGCTGCGTGG
 27721 CGAGACCGGC GTGGTGGCTC GCCGGCTGCG GGGGCGGTGG TTGCGTTTGC TGGATGCCCT
 27781 GCGCGCTCTG GTACGGCTGT GGGGCGTGGA GATGGGTGTC CGTTCCGGAA TACCACTGCG
 27841 GCTGGTACGC TAGGTACGGC GCAGACGCGT AGGTCTGTGG CCACGAGAAC TGAACGGGCG
 27901 GTGGTTGCGG TCGTTGGTGC GCGTCTGTG CGCCGGAGGT CTGCGACGCG GCTCGTTTGA
 27961 GGTCCCTCAG ATCCGCCTGA ATGTCCAATA TGTTTTTGGG CAGCGCCATG ACGTCTTGT
 28021 GTATGCCGAC CTCCTCGCCT GGAACACAGC GCTCGTCGGA AAGCTCCACG TCCCGTTTGC
 28081 GCTTCTGGTG GCGAGACGGT GCCGGAGCGT AGCCGTACGT CGGAGAATAG TACGTGGCCG
 28141 CATACGGAGA GGGTTGGGGG GCAAACGCCG ACTGGAAAGG GAACGGTGGC GCGACGGGCG
 28201 GTGCGTACGA TGGGACGGTC AGCTCAGGCG GCGGTATCCA CGATGGATAC GCCGCGTGTG
 28261 CCGGCATCGA GGGTGGCGCA GAAACGTACG TGCGGTGGCC CTGTTGCGC ATGTTATCGA
 28321 GACTGCTCTG CACCATGGTC AGAAAGGTGC TCTTGGGAAT GGTGATGTTG TCCTCCGGGA
 28381 GGGCGCTCAT GGTTCGGGTG TCGCGGTAC CGCAGTGCTG AGCGCAGGGA AACTGGCTTG
 28441 CCTTTAAATA CGTACTTCTC GCGACTCTGG CCACGCCTTT ATCTGTTTTG AGCAGGTCTG
 28501 TGCGATCTCG GATAAATCCG GCGTCGATCG CCTTGGCCAT CAGTGTCTCA AGAGGGGCCG
 28561 CGAATTCTGG CGGTGTACAC TGACGTTTCG AAAGATCTAA ACAATTGACC GTTATTTTAC
 28621 CGGCTTCCTC TCGCGTAAGA GAATCAAAC TGGAGACGAC CCATGTAGGG TCTGGTCCGT
 28681 AAACGGCGAT TGACCCCTA CGCCTCCCCA GTGCGCACAG AGAGACGTGC TGAACGCGG
 28741 GTGGGTGATT GGGGTCTTGC AGCTCTTCTG GGTGGAGGGA CGAGAGGGAG AGCTCCGGGA
 28801 GCCATGTGTG TAACATCTCC AACAGGGGGT CCCGAGGCAT GGGGTTTAGC TGGATCTGGG
 28861 CCGCTCGCGA GTCCCCCGCG AGCCGTGACG CCAGGGCCAA GAAATCGTGG CTCGTTAGCT
 28921 TGCCCAGGCA AAATATCCCG TGTGTTACTT GGAAGAGACC GATTGTGTGA CCTACGTGGG
 28981 CTTGGGGGAC GTGCTCTATG TTTATCGGTA GAGGGTCCGT ATACGGGAGC AGGGTCGCCA
 29041 CGATTGAGGG CTCTAAATAC AGCTCCTTTT CTATCTTTGG TAGGCTGACC ACGTCCACGT
 29101 ATCCCCAAC GTACACGGGA GTCATGTTGG GTCGGTGTCT GCGTGAGCCG AAGAGATGA
 29161 GCGCCGGTCT TCGGGGGCTG ATGTGGCGCG TTATCCGTTG TGAGAATTGA AATACGTTTC
 29221 TCCCTGGCGA GCTCAGGTTT CTTACCTGG GCTGTGCGA AATGTACAAC TACGGTCTTA
 29281 ACGTGACCT TCTGAAGGAG CCAATTGCCA ATACCGGAAC GAGGGACGAT ATTGTCCTCG
 29341 GCGTAAGGT TCCGGTGGAG TTCTGGAAAA TCGTTTACGA TGGGTTAAAG GAGATGGGGG

WO 00/28040

PCT/US99/26260

```

29401 TTTCTGACGC AACGTTGCTC TCAGAAACCA AAAGGGGGGC TCTGTGGCTT TACTTCAACG
29461 GCGTCCGTG CCTGTTAAAA GGTCTAGGCG ACTACGTTTT TTGCCAACTG GGGTTAAGCC
29521 ACAGCGTACG CGTGGTTCCG GAAAACCTAA CGGATGGGAA TTATCTCTAT AACCTAGGCA
29581 GCGTCATACC ATGTCGCCTG CTTGTGGCAC TGAGCTACTG TTTGGCGTTT TGGGGGCACG
29641 CTGACCACGA GCCCTGGGTC AGGTTGTTCC CCGGCAAGAT TTTTATACTG TACTTAATAA
29701 TTTCCGGCCA CATTATGCCA CGGAAGTCAA TCTTAGAACA GGTGGGAACG TCCGGGTACG
29761 GTGGCTTCGT CGAGGCAGTG TGTCGCGATG TTCGCGCGGT ACACGGGATT CCGGCGTGGG
29821 ATTTTGCGTC CGCGGCTCCG GCGTTAACGT CTCAACAGAC GGACTACTTG TTTGCGTTCA
29881 ATAACAGCGT AGTGTAGGGT CGCCTCACAC TACCGACGTG GCGACCGGCA GGTATCCCG
29941 GACCAAAAAA TAAACTCTGT CGTAGTCGTC GTAAACTCCG AATTGGCTTT TCATTATCTC
30001 GTGTGCCAGA CCGGGGGGCG ATGGGTGCGA AAGGATGGCG GCCAGGCCTT CCTCGGCCGT
30061 TAAACGTAGC GACGTTTGAG CCTGAATCAG GCTGCCAGCG TCCCTGAACG TGAGCTTTTG
30121 GTTCAGGATG TCAAAGATTT CGTTAAATCT GGAACCGGTC AGGTTGACGA ACGGACGAGT
30181 GTGTTTTAGA TGGGATATGG CCTTTGCCTC CAGCGCCGCT AGATACGCAC CCGGGAACAA
30241 AAACGACGTG GGGGCGTCTG GCGCGCGCGA AAGAATTGGG GAGATGTAAT TTTCTGTCAG
30301 GAAATCAAAA AGTTGTCCCT TTTTAAGGTA TTGTTTGGAC CCGGACGGGT CTTCTACCTT
30361 GGAAATCTC CCACCCAGGA GCGAGGCCAG GTTGAGGCGC CGGTGGGGCG ATCTGGGTGT
30421 GATTTGGGCC AGCTCCAATA GCACGTAAAC CAAAACATAA CAGCCTAGTG CCGAGAGGCC
30481 GGCTCGGAGG TTCCATTGGT ACGTTTGAAA GGGAGGCACG TCTTCGTGTA ACAAAGTGGT
30541 CGCAAGATG TATACGAGAT TCGGTCCAGG TGGCTGACCG GTACCGGGGT TCTTGGAACC
30601 GGGTAGCAGT CCGCTCTGTG CCAACGTCGC GTATATCACG TGGTTTGTA AGAAGTCCGC
30661 GTTGACTTTT GTTTCTTTGT TTAGGGGCGC TAGAGAGGCG CGTTGCCTCG GATTCAATA
30721 TGTAACTCG AAACCCAGGC CCTTCGTGTT TTGTTTTAGG TGAGAGACAA GCGTCGCCAG
30781 CTTTGTGCCG AGGTTATCCC AGAGGCCGTT TCGAGTTGGC GGCAACGGGG TACCTGTCCG
30841 GTGACAGTAG TACCCGTTGA GGAGGCACAG CGCGGCCTGC GTGTCCGATA CGTTGCGGAC
30901 ATCCGCGTAA AAGTCTTG TGATCGAGGC GGCTGTTGAG ATTACGGCAG ACATTAGCTT
30961 TAGAGACGTG GAGTTTGAA AGTTTGTGT GCCTCGCAA TCTTCGGGA ACACCTCGC
31021 TTGCTGGCG TTATCTGTGA GGCTAGTTGA CCACGGCCCG TATTGTGGCA GCCATTGGTT
31081 TTGGTTCATG TACAGGCTTG GCAGGAGCTC CAGACGGAGA TCCTGGTTTA CCGTGAATCC
31141 CGGGTCTCCG GGGGCTATTG TGACAACGAA CGCGTCTCCA TGTGTCTGCG GGGCGATTTT
31201 GGGTTGCGGG TTTAGTGATG TTTGGGCATT GCGGTTTCC CTGCCCAGGG ACCCGAGATC
31261 CCCGACCATG TTTTGAATTG TTTCTAGGTC GCGCATGACC ACTTCTGTTT CCCGTTGGTG
31321 CGTTTGACAG ACGTTGTCTA GTTCTAGCCG GAGCAGGTTT TTTCGACGCG TGTGAACCCT
31381 TAGCGCCAGC TGTTGATTTT GCATCACAAA CGCGTTTCTT CTTTCTTCTA TCAGAGATGG
31441 TTTGTGAATA AACAGAACGT TGTTTGGATG GGGGGCCCAA AAAGTTGCGG TAATTGCGG
31501 CGCTGGTTTT CGTGGGTATC TCATACAGCA TTTTCTGAC GTGCGCATCT TCCCATGGC
31561 TAAAAAACCC GTTAAGCGCC GCCGACGTGG TGTTGATAAA TGTAGGCGGA AACGCTGATG
31621 ACTCAGTATG AATTGTTTTA AGTGTTTTCT GGTCTTAAA TAGCAGCCAG GGCCTTACCG
31681 ACCAGTTTTT GTGTCCTCTT GCGCGGCTC TGCCTATATA TGCCACGGAA TCTGTCAATT
31741 GGTGTAAGCC CTGCCATCGC TGTGATATTT TTATTGCGTT GCCGGGAAAT ACAGCCGCGC
31801 TTAGGCACGT CTTGAGTTCA ATTACGTAGC ACGTTTTTTG ATGTTGCTA TTAACGGTAA
31861 GCACACAATC TGCTATTGCG CTACCTAGGG AAACCTCGAA AAAATCCTA AATTTAACGT
31921 TTTTGGTTGC CCTGAGTGTT GGGCGAATTG TATACTGCTA AGTGGGCGCG AGTTCCAGCC CGTTGCGTG
32041 AGGCCGGAAG GGCTTCGAGG GTCGCGACGT GCTTACATTG ATTTGCAAAC GCCATGGCCG
32101 AAGGAGGGTC TGGCTTTGGC GACGAGCTTG TCCGTCAGAT GCGGGATCGG AAGCCTAGAT
32161 GGGACGAGTC TTCCGACGAT ACTGATGACC TTGACACCGA AAGCACCGAT CTTGAGTATG
32221 ATGATGTGTT CCCCCTGGTA GATACGCACG GCTTAATGAG CCCTGGAAGT CAAACTATG
32281 ACGTACCCAC GTCTCCGTCC GGAACGCCGT GGGAAATTCT GCACCCGGAC GCCCTGTATG
32341 CACATCCGAG GTGCCCCGCT AAAAGGGCGG TGGTGCCGGG CCGTGGCGCG CGTCCCAAGG
32401 TGTCCGCGTT CTCGGCTAGA CTTCAATATG TTGGACGACA GAGTTTTGGG GATAGAGAGA
32461 CGCGGCAGCT TACCGGGGCT CAGTTTTCTT CCGAGAGCGA GCACGAATAT GCGGAAATAC
32521 CGGAGCGTAC TACTACACGC CCGGTTGAAA GCGGTGACAA GAGAAATTTT ACCTCCGGG
32581 GTAGGGGTGC AATCTCGGGA CCCTCGTCGA CAAAACCTAG TCACGGTGCG GGGTTAACAC
32641 GTAAGACTAA AACGTCGCTG AGTGTAGTC TTAAAACTT GCTGCGGATA AAGGACGATG
32701 ATGCTAAGGT TGATGTACCC AGGCCGGTTA CCGTGCCGGT TCATCTCATG CAGCCGCATC
32761 CTATGACGGA ATATAGAAAT GCCTTTTAA TCTATCTAGA GGGGTCATG GGTGTTGGAA

```

WO 00/28040

PCT/US99/26260

```

32821 AAACAACGCT ATTGAATTCA ATGACTGGCA TGGTGCCGCA GGAAAACGTC TTAAGCTGTC
32881 CCGAGCCCAT GAAATTTTGG ACGTGTGTTT ATTCAAATTG CCTTAAAGAA CAGCGCAGCA
32941 TAGTTAAGCA AGGCACCCAC GGGAAATTGA TCACTTCTGC TCGCGTATAC GCGTGTGAGA
33001 GCAAGTTTGC GCTACCGTTT CGTGCAGACAG CCGCCGGCAT CCGTCGCAAC CTGCAACCGT
33061 GGCTGGTGGG AAACGGTAGC ACAAAGCCAG CGAATTGGAT TGTTTTTGAC AGACACCTAC
33121 TGTCCGCAAC GGTGGTTTTT CCGCTGGTTC ACGTAAAGTA CAACAGGCTA ACGCCGGATC
33181 ATCTGTTTCA AATCCTATCT CTTTTCTCGG CACACGACGG CGATGTGGTC GTTTTGCTAA
33241 CGCTCAACAG TTCGGAGGCG CACAGGCGCA TTCAAAGTCG AGGCCGTAAG GAAGAAAAAG
33301 GAATCACGCA AAACACTTGT CGACAGGTAG CGTGGGCGTA CCATGCCGTG TTCTGTACGT
33361 GGGTGATGAT GCAATATCTC ACACCGGAGC AAATGGTTCA GCTGTGTGTA CAAACTGTGT
33421 CCATAGAGGA CATATGCAAT ATGAATTCCA GATTGACTCA TCGGTTTCTA ACCCTAACAA
33481 AACTACATGA ACAGAGTATG ATACCCATGG TGGCAGAAAT GTTAGTATCG GTTAAAGAAC
33541 ACGTGACCTT AATGGAGGTC TGTGTTGGGAC TCTTTAAAGA GCTACGAAAG CTTCAAATTT
33601 TAATTGTTGA CGCAGGAGAA CATCTAGATG ATGCGTGTGG CCTCTGGGGA AATATTTATG
33661 GGCAGGTGAT GTCAAATGAG GCTATTAAAC CACGAGCAGT GAACTGGCCA GCTCTTGAAG
33721 GCTACATTCA AACGCTAACC AAATTGGAAG GCAATGGCGC GTATTAGTTT TATATTTTTT
33781 TTTACTATAA TAAGGTGTTT TGTAACGGAC AAATACGTGT ATGATGAAAA ATCAAATGTA
33841 GAGTTGGAAT TTAATGGAAC AATTTACCAA ATTAATTGGA GAAACGTAAG GAAAGAATTA
33901 ACATCTATTG TAATGGAAGA TGCCTGGTAC GATTCTTTAC TGCTGGAACC ATTGTCTGTG
33961 ACTTTGGAAA AAAGAAAAAG TTTGCTGCGA TCAAGTATAG TTAATGTGCA TAATAATGAC
34021 TATACATTTT GTAAATCTTC AAGTGACCAT GTAATTAACC TTACGGTGGA TTTTAATTAC
34081 AGTTCTTTGC CAGGTTTTAC TGGGAATTTT AATGTAATGA CACATGCTTT AACACAAGGC
34141 GTTTTATTAA CGAAACGTGA ATTATTTACC AACTCAACAA ACATTATGGA TCTTTTTTAC
34201 GCGGAAAAAA TAAATGCAGA AATGTTCAAG ATTACTTTTG ATTATTCCAA TGTAATAATT
34261 TCCGGCATTG TAACAGAAAA TTGGATATTA GTATCAGTTA CAAATTCAAG TGTAATAATCA
34321 AATATGCAAT GTGTTGCACT GTTGTGTTGG GTTCCTAGCA CATTTCAGC GGTAAAAGGC
34381 TATGTATCTT ATCGTGATTT ATTTGGTCGT AAAAATTCAA ACTATGCTCT GTTGTAATT
34441 GCGCCGAAAT CTTATAATAC TCTTGATTTG CATTTTTTAC CAAAAAATTT TACAGAAATG
34501 TTTGTTTCAG TTATAGATAG TCCGCTTAAT GCCATTGATT ATCTCAAAGG AAAACTTTTG
34561 GCTATTGAAG CAAAGGGTGC CTGTCAAAAT CCTTCAAATG AAAATGATAT CTTATCTTTC
34621 TTTTTTGAAG TTACTGCAGT AAATTTTTTA TTTATAAAAA ATCTTCAAAA GCAGCAATTA
34681 GTTAACGTTG GGTGTGTTGT ACGGCATGTT GCAGCGTTAG AAAGTTTAAT GCATTTATTA
34741 AGGCTCTGCT ACCCAACGTT TAAGTTATAT GAGCTAAATT TGGAACGTT GTCGCATATT
34801 GCAGAGTCCC AGGTTTTTAA CTTGCCGGCA AATAGCATGT TATCGTTATC AGTAAATGAT
34861 CAAGAGGTCG TATTTTCAAT GTTTAAATTT GTATATAATA CACCTAAGGT TGGTGGTAAA
34921 ATTCTAAACG AAATTGTATA TATTACTAAT TACATGTACA CCAAATACAG TGAAATTTAT
34981 CAGCTAACCA ACACATTTAG GCGGAATGTA ATGAACATGT ATGAAGTTTT AACACAATT
35041 AAATTAAACG TCACAGATTG TTCTGTGTTT TATCCGTATA TATTGTTTAC ATCCATGTGT
35101 AGATAATGTAG AGATATCATA TATGATTAAT CAAATAGCAA AGCCCGATGA CATCACCATA
35161 TTTCGCGTGT TTTCGCTTGT TTTTTTAAGC TTAAGGTTTG ATTTAGATGA AAACAAGCTA
35221 CGATCCGACG CACCGCAGAC GTCAAAAAGA ACCGGCTCGG AACTGGCACA AGGAGCGTCT
35281 GGTTTTTGGC GGCTGTTGCA CGCTTTTAC GCCACGCGTA TAAACGAGTT TTCAGTCATA
35341 AATTGTACCA GGCTGGCATG GAAGCAAGTA ACCGCGCTGA TGCCGCTTAC GAACATCAGC
35401 TACGTCATAA GCTCCGTGCG CCCTGATCAC GCTCGCGTTT ACGAGGTTTC GGAGGTGTTT
35461 CTTAACAGCG CGATGTTTGT CTCGGCCGTT TATCCAAATT GTTCTCATTT TACACCGCCC
35521 GGTACCGCCC TACACATTCC GATATTGTAT AACTTTTCCG CCCCAGGAT AGGATGTCCG
35581 CTGTGTGATT CGATTGTTTT GAGCTATGAT GAGAACCAGG GACTACAGAC CATGATGTAC
35641 GTGTCAAACC CCACAGTTCA AGCCAACCTG TTTTCCCCGT ATTCTCCTTT CTTTGACAAC
35701 GATAATTTTC ATATCCATTA TTTGTGGTTA ATGAACAACG GTACCGTTGT GGAAATTCGG
35761 GGATTGTACA GAAGACACGC ACTCAGTGCT ATTGCATTAG TATTGCTTTT TATTGGAACA
35821 ATGTCTGCTC TGTATTTTCT GTTTAAGCTG TTTTCCATCC TGGCCTAAAC TGTTAATAAA
35881 GCGTAAACT TTAAGAGGTT GTTTCCCGTT TCTTTTTGGA TGGTTACGCG GGGACTGAGA
35941 TTAGCGAGAA CCTCGGATAG AGGCGTGCCG TCACATATTG ATCAATCAC CTCTCGGCCA
36001 ACTTGAATGG CCAGCTCTCG ATTTTGGGGA GGAAACATTA AAAAATATTT GTGCGTCGCG
36061 GTTAATAATC GCTGCGGAGC CCGCGACAAA ACTCGAAAAT CCTCTGAAA GTGCTGGGAC
36121 TCTATGGAGT TTAAACAAAA CACCATGTCT TCCAGGCGCT GTTTTACGCG CGAGAGCATG
36181 GATTCGAAGT ATTCTCTCTG ATACGGGCCC GCCGCCTTAC ACGTATTCGC GTATAGCATT

```

WO 00/28040

PCT/US99/26260

36241 TTAAAGTGAA ACAGAATATT TTCCAAACCC AAACGCTGCA ATAGGACGTG CTTTAAAAAA
 36301 AGGTGTTGGA TAGGCTTTAG TTTTAAATTA GGTA AAAACA TTATAGAGTT GTTGGCGCGC
 36361 TGCATAATTG TCACGGTGTT AAACGCGGTA ATCGGGCTCT CGCCTATTTG TGGCTGGCGC
 36421 GAACCCATGG CAAAAAATAT GTCTGCCAGT AAACAGTCCG ACTGTACATT TGACTCGCTG
 36481 GTCGCTGGCG GTTGCTTGAG GATGGATCGA AGTTTTTTAT TATCCGGCGG AAGCGCGCTA
 36541 CATAAGGTCG GTGGCGCATT TGGATCGTAT TCTTGCGTGG TGTTTGCCAG CTCGTTTATG
 36601 GTTATCTGTT TGTTATTTGT AAGAGTTACC GGTGGGGTCT TGACGGTCGC CGGGACGGAA
 36661 AATGGCCTGC AGTGCAAAAA AAGAGAGTTA CTCGCAATCA CTAATTTTGA GTTTACGGTA
 36721 ATTGGTGTGT CCTCAAAGTC AGAAGTTCTA ATTACTGGGT CTCTGAACAA TGATACGCCT
 36781 CTCTCGCCTT CGTCCGTTCC CACGCACAAG CAGCTGTTTA GCGCGTAGGG ATGGGGTGAC
 36841 ACCATAATTC GCAGCATTGA TAATTCGGGA CGTTTTGGGG CGTACAATGG CATCATGTTT
 36901 GAATAGATGG TGCTGAATTT TTTAAACAAC AGGGGAAGGG GTACGGCCGG TCCCGGAAGT
 36961 CCGACCATTG CGGCAAGTGC CGACGAGTAC ACGACATGAC AGACGTACTC GCCGTTGGAT
 37021 AGCTGCACCG CCCCCCAAC TAAGCGAGCC TTTAAATCTG AGATTTTTAT CATTGATTTT
 37081 CCTTTGGTAG TTTCAGGAAC CGCAGCGGCC TTGGCTTCGC GGTATATTTT TTGCTTTATG
 37141 TCTCCAGTGA AGTCCCAAAC GTCTAATAGT GTGTCGAATT ACCTGCGGTT TTAAGTTTGA
 37201 AAACGCGTGA CCGGTCGTAG CTATGAAAGA CATAAAATTG GCGTTGCGTC CTAACCTGTC
 37261 TAACCGTATT TTTTACTTTC GCACGTATAT CTTTGGAATG AGGTTGCATT TTTTATATCC
 37321 CAGAATAGCG CATTCGTGTT TGCTTTTGGT GTGACTAATG ATGCGTTTTG AAAAGTCAAA
 37381 CGTACCAAGG CGGGCGGCGC GGTTCAGGGC TCCCAGATCC AAACGCAAAA ACGAACAACA
 37441 TTCCACCAAA CACTCGATAA AACGCTTGTC TAGAGTTTGT ATTTGCGCTT TATTTCTTGT
 37501 CTCCAGCGTT GTGAATATTG TGTTTTTCAC CTGGTCTATT CTAGCATATG GAACGCTTAA
 37561 TATTGGGTTT AATTCATCCG AAAGTTTTTT AAGTAAGGGC CTACCGTATA TTTTAGAAAT
 37621 TGTCGAGTTT GCCGCCTTAA ACCAGGAAAC GTTGCATCCG TCTTTACTAG AAACCACAGA
 37681 AGGGAAATTA GTGGTCCAGA AAACGTCTCG CCGCCCCCGT CTAACATATG ATTGGTTTTT
 37741 AAGCCCGTGG AGGTCTAACG TAGAGTTCCA GTTCGCAATC GAAACCGGGA AAATGTGCTT
 37801 CACCGGTAAA AAGCACCTGA GGTTCCTCCAT AGCGAACATA AAGTGCAGCA TGTCCCCGCT
 37861 TATGTTAACG TTAATTGCAG CCCCCTTGCA CAGGTTGTCT GAGTAGAACA CACTCACGGT
 37921 GAATGACGGT TCTTTCACGG AGAATTTTTT CATTACAAAG TTATTAGTGA GCCTGGGGAT
 37981 GTCGATAATT GACTCGAAGG TACCGGCGAG AGACCAGCAC GTGATTTTGG TATTAATTAC
 38041 CATATTGGTA TTGAAAACCTG AGATTTTGAA GTTGTGTAAA CTCATGTGCT TAACTGGATC
 38101 GAACATGTCT GGAAGAGGTT CGGTCTGGTG GTCGTGACGC GCTTGTTTCAT ATCGATCTGG
 38161 GTTTTGATCG GCGTTAAAAA TAAAATTGTA ATCTCTATCT TTTGGTGCCT ATTGAATTCG
 38221 CGAAAACATG GCCTCTAGGA CGCGAGGCGT TTCGCCTGGC CCCAGAAACT CGGTGTTAGG
 38281 ATACAGCCTG TCGCACGAAT GGCACACGTG TTCCGCCACA GACATGCACA TTGCGACGCG
 38341 GAATATTGGT ACCTCGGGTG GAAACGTTAG ATAGTACGTT GACTTTGGCG TCACAACAAC
 38401 TACCTTGATC GGTTTTTTGC CGGGATCCTT TTTGTTAATT TTCACCTGTA GATTTACGTC
 38461 AAGCGATTGA TTTACTATGT TTTGGTAGTC TATGATTAAT TCGCTCGCCA CTTTGATGTC
 38521 CTGAAATTTG TTTTGCTTTG AGAGGTTTTT TAAAAGTACC GGATTGGATT GATTGTTGTG
 38581 AATAATTACC GTTTGGACGC GATGCAATTG GGGATGCGAA ATCCAATCCG AAGTAAAACC
 38641 CAAAATGTTA AATTTTAAGT AATTCAGATG CAGTTTTGCA CACGGGGGCG GACACCGAGC
 38701 TAGCGTGAGG ATTTTGAATG GCTCTAAAAG TTTAAAGTAA TTCTGATAAC ACGTGCCGAT
 38761 CAGATGTTCC GGCAGTGTGC GCGTAAAGGC AGCAAAGCAT TCCTCGAATT CCCATATTTG
 38821 AAGGTAACGA CAGAGGATTC GAAACATGCT TTGATAATTT ACGCCACATA CCATTAATGG
 38881 CGAACAGTAC AGCGACCGTA GGATTCGTTT GTCGCTTTGA ACCAAAACCG TGTCGGACAG
 38941 TTCGTAGGTG AAAACGGTGG GTAAAAACGT ATGCGTCTCG ATATGGGAAA ATGTACATCC
 39001 GATAGCATCA TCAATTATTA AACCCGGTCC CGCGTACTCG TTACCGGTCT TGCCAACGAT
 39061 ACCACCTTGG CGGTGTATAA AAGGGTATAG TCCTTCTCCC AATACCAGAC GCCGGAGCGC
 39121 ACGGCACGCG TAAAAGGTGG TCTCTGTTTG CATAGCCCTG TCCAAGGCCT CTAGCGAGAC
 39181 GTTTTCAAGA ATCTCATTAT TGGTGGCCAG GCAGCAAAAA ATTGCCAGTT GAGTTTTAAA
 39241 ATCGGAATTG GCCGGTGACG GGGCGTTTCG TGCCACCGTA GCAGGACACG CGGGCAGAAG
 39301 AACAGGGCCC TGCAACAGCA TAATGGAGGC GGCTCTGGAG GTACGACCCT TTCCATATAT
 39361 GGCCACGGAG GCCAATCTGC TTCGTCAAAT GAAAGAGTCG GCAGCCAGCG GACTTTTTAA
 39421 AAGTTTTCAA CTGCTGTTGG GAAAAGACGC CAGGGAGGGA GGAGTTCAAT TTGAGGGTCT
 39481 TTTGGGCGTG TATACCAACG TAATTCAGTT TGTGAAGTTT CTGGAAACGT CGCTAGCGGT
 39541 TGCGTGCGTT AACACCGAGT TTAAGGACCT CAAACGAATG ACGGATGGAA AAATTCAGTT
 39601 TAAGGTATCT GTACCGACCA TCGCGTATGG GGACGGCAGG CGGCCACAAA AACAAAAACA

39661 ATACATTATC ATGAAGGCCT GCAATAAGCA TCACATTGGT GCCGAGATAG AGCTGTGAC
 39721 TGATGACATC GAGCTGCTAT TCATTGACAG AGAAACCCCA CTCGATTACA CAGAATACGC
 39781 CGGGGCCGTA AAGACGATTA CCGCCTCTCT CCAGTTTGGC GTGGACGCGC TGGAGAGGGG
 39841 CCTGGTAGAT ACCGTATTGA ATGTTAAGCT TAGGTCCGCC CCGCCGATGT TTATTCTAAA
 39901 AACACTATCA GACCCGGTCT ACACCGAACG GGGTCTAAAG AAGGCTGTTA AGTCAGACAT
 39961 GGTGTCCATG TTCAAAAGCT ACCTTATGGA TAACTCGTTT TTCCTCGACA AATCAGACAT
 40021 CGCCGTCAAG GGAAAGCAGT ACGTGCTGTC GGTCTCTCTC GACATGGTGG GGGCGGTGTG
 40081 TCACGAAACG GTTTTAAAG GGACGAATAC GTATCTGTCT GCATCGGGAG AGCCAATTGC
 40141 CGGAGTCATG GAGACCACGG AAAACGTAAT GCGAAACTG TTAAACATGC TAGGTCAGGT
 40201 TGACGGGGGC ATGTCCGGTC CGGCGTCTTA CGCCAATTAC GTTGTGAGGG GCGAAAATCT
 40261 CGTAACCGCC GTGACGTACG GTCGCGTCAT GCGAACGTTT GACCAGTTCA TGAACGCAT
 40321 AGTGGACCGT CCAACGCGC AGCCAGCGT CGACGATGAT CGGGACGCGG TGGCGGACGG
 40381 GCAGGACTCC CTCGCCAAAA CACCGATCGC GGCGGCTGTT ATCCAGATTG GAGATAAACT
 40441 GGTGGCTTTG GAAAGTTTAC AGCGAATGTA CAACGAGACC CAGTTTCCCT TCCCGTTAAA
 40501 CAGGCGTATG CACTATACTT ATTTTTTCCC CATTGGGTTG CACATGCCCC GTCCTCAGTA
 40561 TTCCACGTCG GCCACAATTA AGGGGGTCGA GCAACCCAGCG GAACAATCCG TCGAAACGTG
 40621 GATTGTAAAT AAAACAACG TACTGCTGAG TTTCAATTAT CAAAACGCGC TCAAGTCCAT
 40681 CTGTCACTCC CGCATGCACA ACCCGATGCC GTGTGGGCAA GCTTTGGGTC AGGCGTTTCC
 40741 AGATCCCGGA CACGTTTACA GGTACGGACA AAGATCTGAG CACCCCCCGA ACATGAACCT
 40801 ATACGGGCTG GTGTACAAC ATTACCAGGG CAAAAACGTG GCACACGTTT CCGATGTGCG
 40861 CCTAAAGGCG ACGATGACCA CAGATGAGTT GCTGCACCCA ACCTCGCACG AGACGCTTCG
 40921 TTTGGAGGTT CACCCGATGT TTGATTTTTT CGTTCATCAG CAGCCTGGTG CGCAAGCCGC
 40981 GTATAGGGCG ACCCACAGGA CTATGGTGGG TAACATTCCA CAACCCCTGG CGCCCAACGA
 41041 GTTTCAAAAC AGCAGAGGCC TGCAGTTTGA CAGAGCGGCG GCCGTGGCTC ACGTGCTGGA
 41101 CCAGTCAACG ATGGAAATTA TCCAAGATAC GCGGTTTGAC ACGTCGTACC CACTACTCTG
 41161 TTATGTCATC GAATGCCTCA TTCACGGACA GGAAGACAAA TTTTGTGATTA ATTCTCCTTT
 41221 AATTGCAATTA ACCATTGAAA CTTACTGGAA CAATGCCGGA AAAGTGGCGT TTATTAACAG
 41281 CTTCCTATG CTGCGATTTA TCTGCGTTCA CCTGGGCAAC GGTAGTATTT CTAAGGACGT
 41341 GTACGCCCAT TACCGAAAAG TTTTGGCGA ACTCGTGGT TTGCAGCAGG CGCTCTCGAA
 41401 AATCGCGGGC CACGAGGTGG TGGGGCGCAG GCGCGGTCC GAGCTGATTA ACTGTCTTCA
 41461 GGACCCCAAT CTTTGGCCGC CTTTGTCTTA CAATGACGTT TTTACCAACC TGCTCAGGCA
 41521 GTCCTCGCGG CACCCCATGG TACTCATAGG CGACGAGGGG TACGAAACGG AAAATGACAG
 41581 GGATACGTAC ATCAACGTCA GAGGAAAAAT GGAGGACCTA GTCGGTGACA TGGTTAACAT
 41641 TTACGAGACC AGAAACAACG CGGATCATGA CGGCCGCCAC GTCCTTGACG TCGGTCCCTT
 41701 TAATGAAAAC GAACAGCACA TGGCTGTGCT GGAAAGCTT TTTTATTACG TGGTTCTGCC
 41761 AGCCTGTACC AACGGTCACG TCTGCGGCAT GGGCGTCGAT TTTGACAACG TGGCCCTGGC
 41821 CCTGACGTAC AACGGCCCAG TGTTTGCTGA CGTCGTGAAC CCCGACGATG AGATTTTGGA
 41881 CCACCTGGAG AACGGGACGC TCCGCGAGAT GCTCGAGGCT TCTCACCTGC CCGTTTGTTA CCCAGGCCCTC
 41941 TGACATGATT CGAACTCTTT GCACGTCGTT TCTCACCTGC CCGTTTGTTA CCCAGGCCCTC
 42001 CCGTGTGTG ACTCAGCGGG ACCCCGCGCA ACTGTTGACC ACTCACGACG ACGGGAGATA
 42061 CGTGAGCCAG ACTGTCTCTG TTAACGGGTT CGCGGCGTTT GCTATCGCAG ATAGGTCTCG
 42121 TGACGTTGCC GAGACCATGT TTTACCCGGT GCGGTTTACC AAGCTGTACA GCGATCCCT
 42181 GGTGGCGGCC ACGCTCCACC CGTGTGTCG CGTTTACGTT AAATTACGTG ACGCGCCTGC CGGCCAGCG
 42241 CGTGCCGGTC GCGTTTAAAG TCCCCCGGC CCTCATGGCC GAGTACGAGG AGTGGCACAA
 42301 GTCTCCAATG CTGGCCTACG CTAACACCTG CCCGATGACG CCCACGTCGT TGAGCACCTT
 42361 GGCGAGCATG CACATGAAGC TGTCCGCGCC GGGGTTTCATC TGCCACGCAA AGCACAAGAT
 42421 TCACCCGGGC TTTGCGATGA CCGCCGTCCG AACCGATGAG GTGTTGGCGG AGAACTTGCT
 42481 ATTTAGTGCC AGGGCCTCGA CGTCCATGTT TTTAGGGCAG CCATCGGTTA TGCGTCGGGA
 42541 AGTCAGGGCG GACGCAGTCA CGTTTGAGGT GAATCATGAG TTGGCATCGC TGGACATGGC
 42601 GCTCGGTTAT TCTTCCACCA TCACGCCCGC CCACGTTGCG GCGATTACCT CGGACATGGG
 42661 CGTTCACTGT CAGGACATGT TTCTCATGTT TCCCGGGGAC TCGTACCAGG ACAGACCCT
 42721 CAACGACTAC GTTAAACAAA AAGCCGGATG CCAACGATTC GGTGGTCTCG GCGAGATTG
 42781 TGAGCCCGTC GCTTACGTTG CGGGGGTGCC GCACCTGGAC AACATACCGG GTCTCAGCCA
 42841 CGGACAGCTG GCCACGTGTG AGATTGTTTT GACGCGGTT ACTGCAGACG TTACCTATTT
 42901 TCAAACCCCC AACAGTCCCC GGGGACGGGC ATCCTGCGTG ATCTCGTGTG ACGCGTACAA
 42961 CAACGAAAGC GCGGAACGTT TGCTCTTTGA CCACTCCATC CCGGATTCTG CCTACGAATA
 43021 CCGCACTACG GTTAACCCAT GGGCGTCGCA GCAGGGCTCC CTCGGAGACG TGCTGTACAA

43081	CTCAACCTCG	CGCCAGGTCG	CAGTGCCAGG	GATGTACAGT	CCGTGTCGCC	AGTTTTTCCA
43141	CAAGGACGCT	ATTTTGCGTA	ACAATCGGGG	CCTGAACACA	CTAGTCACGG	AATACGCGGC
43201	CCGCCTCACG	GGAACGCCGG	CGACCAGCGC	GACGGACCTG	CAGTACGTGG	TGGTCAACGG
43261	AACGGATGTG	TTTCTAGAAC	AACCGTGCCA	GTTTCTACAA	GAAGCGTTTC	CCACGCTCGC
43321	CGCCAGTCAC	AGGTCTCTGC	TGGACGAATA	TATGTCGAAT	AAGCTCACGC	ACGCCCTGT
43381	GCACATGGGA	CATTATATGA	TTGAGGAAGT	GGCCCCATG	AAAAAGACTAT	TAAAGATCGG
43441	AAACAAGGTC	GCCTATTAGT	TTAGCTCAGA	CGGTCTGGAG	CTAACGAGAG	ATGGCCCTCG
43501	ATAAGAGCAT	CGTTGTCTCG	GTGACGTCTA	GATTATTCGC	CGACGAGATA	GCAAATCTTC
43561	AGTCAAAGAT	AGGATGCATT	TTGCCTCTCA	GAGACGCCCA	CCGTCTGCAG	AATATACAGG
43621	CGCTGGGTCT	GGGGAACCTG	TGCTCATGGG	ATTCCGCGGT	GGATTTTATT	CAGGCATATC
43681	ACTATTTGGA	CAAATGCACT	CTCGCCGTGT	TGGAAGAGGT	CGGTCCCAAC	AGTTTACGGC
43741	TAACGCGCAT	TGATCCCATG	GACAATTATC	AAATAAAAAA	CGCGTACCAA	CCGGCCTTCC
43801	ATTGGGATAA	CTACTCAGAA	TTGGTAGTTA	TACCACCGGT	CTTTGGGCGC	AAAGATGCGA
43861	CCGTCTCACT	GGAGTCTAAC	GGGTTTGTATG	TGGTTTTCCT	TGCCGTGGTG	CCAGAACCAC
43921	TGGCTCAAAC	AGTGCTTCAG	AAGCTGCTGC	TGTATAACAT	ATACTACAGA	GTGGCGGAGA
43981	CGACGCCCCAC	CGACGTCAAC	CTAGCCGAGG	TGACGCTGTA	CACGACCAAT	ATCACTTACA
44041	TGGGTCGCAA	CTACGCCCTG	GACGTGGACC	CCGTTGGGTC	GAGCTCAGCT	ATGCGGATGC
44101	TGGACGACCT	GTCCATTTAC	CTGTGCGCTT	TGTCCGCGTT	AATTCGCGTG	GGGTGCGTAA
44161	GGCTACTGAC	CTCATTGGTG	CGCCACAACA	AACACGAATT	AGTCGAGATT	TTCGAGGGGG
44221	TGGTGCCACC	TGAGGTACAG	GCCCTGGATC	TCAACAACGT	AAGCGTGGCC	GACGACATAA
44281	CGCGCATGGG	TGCCCTCATA	ACCTATCTAC	GAAGTCTCAG	TTCTATATTT	AATCTGGGCC
44341	GCAGATTTCA	CGTTTACGCG	TTCTCATCGG	ACACGAATAC	CGCTTCCTGT	TGGTGTGCAT
44401	ATAACTAGAA	ACGGGCCTCC	CTGTGCTTTG	ACATGTCGAT	CCCCAAAATT	ATGACGGTGT
44461	CCAGAGACAA	CGAGGGTACG	GTGTGTGAAG	TCGCGGTGGA	CAACGGACGA	CACAGAGCGA
44521	TGATTTATTA	CCCTAAGACC	ACCAACTTAG	CAAACGAGCG	CGCGGACGTT	GTAAAGGAAG
44581	CTTTTGATAC	CGAAACCCCA	GTGGACATTG	TAAAGCAAAT	TGTTAACGAG	GGCCTAGCTA
44641	TATCCAAAAA	AAATTGCGTC	CGTTTGGCGT	TGTATTATA	TTTTTATTTG	CAGTACGTGT
44701	GCTTTGCTCT	GCTCCTCACT	TGGCATTTAA	ACCCGTACAT	GGACCCACCG	GGTCTGGTGT
44761	TTGCGGTTAA	CCCCATGGGT	CCAAAACATG	TCACGAAACT	ACCGCACCCG	GCTATTGTTG
44821	CGGTAGGTTG	TGGGGCAGAC	GCCATCTGTA	AGAACTGTAG	CGTCCCCGAT	ATCAAAACGG
44881	AGCTTGGAAT	GGTTTACCAC	AACGGGTCTA	GCGATTCTGG	TCAGCGCGCA	CACATATGGG
44941	TGGCCCTGTT	AAAGGCGGCC	TGGCTTGTCA	TGGGAAATGT	GTGTCCGGAA	CCAGTAGTGC
45001	GGCAAGGCGC	TGCATTACTT	GGTCCATGGA	ACCGGACGGA	GTGGTCGGAT	TTTAAATCGG
45061	CAATGGCGGC	AACCACGTTT	TGCGGATCCA	GAGGCGTTCT	GTGGTCACCG	ATTATGAAA
45121	AAAACCTCTG	TCGCCCCACC	TGGAATGATG	TAATTAACAC	ATCAGTTTTT	ACAAATGAAT
45181	CACTCTGTCC	AAATATACCT	GTGGTGCCCG	AAAGTGTAAT	AGTGCTTAAT	GGTGATGCAT
45241	GAGAACAATA	AACGTATTCC	CACGCACCTC	ATGTACGTTG	TTTTTATTGG	TCTGGTAAGG
45301	TATTAACAGT	AATGGGAGGT	TCCGCTGGTG	CCTATAAAGC	AAAACGGTCA	TAGAGTAACA
45361	ATATTGTGAA	TGGGGAAAT	AGTCTGTAAA	TAGTTTATCC	GAACAGTATG	ACTGCACACA
45421	CGAATGGGGT	TTTAACCACG	ACGGGCTTTT	CAACAAGTCA	GCCGGAATCG	GTTCAAGTTT
45481	CTCCATTTTA	TCGCGTAATT	ACAAAACCTC	CCGTTATGGG	CTTGTTTTTT	TGCGTGGCTA
45541	TGTGCGTTAT	CGCGTTGGTA	TGGTACGTGA	TGCGGAGGGT	GTGTTGTAAG	GGGCGCGTTG
45601	TTGCCGATT	GTGTCGCGAC	CCGCGTCAAC	CCGCGTATGA	GATGTTGAAT	GTTAGGTTGC
45661	GTCCCCACGG	AACCAATCCA	TAGAGAACTT	TCACGTACAT	AGCCAAAGCG	CACGACGTGC
45721	TCTCTAGCTC	GTTTATTCTA	GCGATTTAAA	AACAAATTTA	TCGTTGGTTG	CCATGTAGTG
45781	GGCCATGACG	GCGGCGACAA	GCACGTGCTC	CGACATGGTT	TTTTGTTTCG	CGCAGTACGT
45841	GTGACCTCCG	TCTTTTAGTG	GAATGCAACG	TATTGCCTTG	ATTTGATCTA	TTAGATACGC
45901	TACGGGATCA	AACGATAGCT	TAATAGTGTG	AGACACCACA	GTTTGGCTAG	CGCTAAACGT
45961	TCCCGAGTTC	AATGCGTAAA	TAAAAGATTC	AAACGCCTTG	GCTTCTCTCTG	GCCCCAACAT
46021	GTAAATGGGC	GAACGTATAA	GAGTGTTCTT	GTCCACGTGG	TGTAATAAAC	TAAGAGGGAC
46081	CGAGCAAATC	TCGTTTAAACA	CGGTTGCTAT	GGCCACTCCG	GCATCTTGAC	TGCTGTTGCC
46141	TTCCACGGCG	ACGTTAACGT	GCGTGATCTG	CGGGTGAAGG	GTAACGATCG	CTCGAATTAA
46201	CGCGGCGGCA	CATGACGCTA	TCTGGTACGC	GGCGGTGCCG	GTTAGATCTC	TTAGAAAAAA
46261	ATGTTCCACG	CCTAATAAAA	TGCATTTAAT	CACCTTGTA	TTTACCGCAA	TACCCGCACC
46321	GATGCCGGTG	CCGGACGCGT	CTGTGTTGTT	GGTGTAACCC	GGGTCTATGT	AAACGTGGAG
46381	ACACGGCTTC	ATCGCGCCCT	GTATATCTTG	TGACGTGCTC	TTTACGCGGC	ACAGATCCAA
46441	TTGTGACAGC	GAAGAGTCGC	TAACGATTTT	ATGCATGCTT	TGAGCGGACG	TGGCAGCGTC

```

46501 CCCCATTAGC TCCGTGGAGA ATGCGCCTTC CAAAAAAGA TTAGTCGTGC TCCGTACCGT
46561 CTCATCAATC GTAATATAGG CAGGAATATG CAGGCGGTAG CACGGGCACG CCACGACAGT
46621 GTCTTGCAAG TTAAAATCAT CTTTATGATC CGGACATACG TAGTTCACCA CGTTAAGCAT
46681 CTTTTCGTGG GCGTCCTTCA AATTAAGTAA AAAACTAGTT GATTTGTGAG ATGAGTTACT
46741 TGAGGATATA AAAATCAGTT TTGCGTCCTT TTGAAGCATA AAACCCAGAA TCGCGGGGAG
46801 GGCATCTTTT TTAATGAAGT TCGCCTCGTC GATATATAGG AGGTGGAACG TCTGTCCCCG
46861 GATGCTCTAA AGGCAAAGAA AAACACAAAA CGAGTTACGC GGGTATGGAG AACGATACGC
46921 CTAAGGACAA AATCTCGGAA GCTGACTTTC AACAGTGTCA GCGGTTCTTT CACCGTCCCA
46981 TTAGAGATCT AATTTTCATCT GGAGCTGACG CTTTAAACCA CTTTAGCCTA TCTGAATCAG
47041 ACGGACATAA ATTGGAACGG ATTGTTCTTC TGCTTGACCT GGTGGGGACA GAATGTCTCT
47101 CTTATACCAC GATCGCTGCA AAGAATGTCA AATGACGCGC GTCAACAGCC CAATATGTGCG
47161 ATTTTCATAA GTCTCTAACT TATACCAGTG TTTGGATTGT AAGCGCTATC ACGTATGCGA
47221 CGGGGGACGC AACTGCGTGA TCGTGACAC TCGCGAAAAT CTAGTGTGTG ATTTAACGGG
47281 AAAGTGCCTT TTGGATAATG TGCAGGACGT ATGTTTCGTAC GGTCTCCAG AACGCCCGCT
47341 ACCCGACGCC TTCATCGATC CGCTCGTGTC ACACGGCACG AGGGAATGTC TTAAGCGA
47401 TATACTGAGG TACTTTGAGA CGGTCGGTGT GAAATCTGAG GCATATTCTA CCGTTGTCAA
47461 GAATGGACAA TTGAATGGCA TCATAGGTAG ATTAATAGAC GCTACGTTTA ACGAGTGCCT
47521 TCCGGTAATG AGCGACGGCG AAGGTGGCAG AGACCTCGCG GCGAGCATTT ACATCCCAT
47581 AATTATCTCC ATATACTCCA CTAAAACGGT ATATGATAAT CTTCTATTTA AATGTACGAG
47641 AAATAAAAAA TACGACCACA TTGTAAAAAC TATCAGAGCG CAATGGATGC GCATGGTCTC
47701 AACC GGCGAT CCGTCGCGGG TCAGTGCGAC GGGTTGTTTC ACGTGATACT TCCGCGAGGG
47761 TTTATCCTCG CGAACAATAT TACGTGCGGT GAACGGCAGC GGTTTTTTGC ACACACTTGG
47821 TTCGCTGCAT CTGGACGCAC GTCTAAGACT TTATACGTGT GGGGACGGGT ATTTCAAAC
47881 ACCGACCCGG GCCGCGGGGA CGGTCCGTCC GGGCCGTGGT CCGGACTGGC GATTAGTCTG
47941 CCTCTGTTTA CCACAAATGG AAAATTTTCAT CCGTTTGATG TAGTTATACT CAAGGCCGAT
48001 ACGCCTGACT CTGGAAGCTC GTGGACCGTG AAGTTCCTGT ATATGTCATT AATGCGGCT
48061 TACAGAAACG CAATGCGAGG TTTAAAAGAT AAAGTTTCGC AATGTACCGA TGCCGCCGTT
48121 GACGGTGAGG TTCATCCTCT AACCGTCTTA AAGAAGCGT TGGTATCACC GGACACTGCT
48181 ACGCGACCCG TGTCCGCGTG CAACCTCTTA CAGATGTTGA CCGGACTCTT ACAGTCTAGG
48241 GTACGGGACG ACTACGTGAC ACACCACCGT GCGCTCGAAC GCCCAGGTAA TGTGAGGGGA
48301 CAAGTAATCG CCCCACGCG CACCGAGATG CCAAACGGAT CGCCAAGTCG TGTAAGGCTT
48361 GGATTCCGCC CTCCCAAACA AGCCAACATAT CCAAAGACGT GGGCGCAGGC GCGTCACGTT
48421 TTCTCGTCTC GCGCATATTA CGTGTCGTA TATGATAACG AAGAACTAGA TACCAAGTGG
48481 CAGCGGCAAG ATCCGCGGCC GTTGCCGCTA GATTGGTCCG ATCCGGTCGCG GTACCTGTTA
48541 GAGGGCGATT TGTTTTTAGG AGCCAAGCAG AATGCGTTTG TCGATTCTAT AGAAAAGACG
48601 TGCAGGTGTC AGAACTATAC CATTAAGCAA TTTTTCGCG TTTGATAAAA TAGGGACAAC
48661 GAAACAGTCG ACTTAATTAA GGAGCATTTT ATAGAGGCGT GCTTCGTGAT TAGAAACCAG
48721 GTGTCAGAGA GGAGCGCTTG GGTAAAGGCG GCGCTGTTTC GCAACGATAG TAACACGTAT
48781 TGGAAGGATG TTTTGGGATT ATGGGAGCAT GGGCCTCATA AGCTGGGTAC GGCTATAAAA
48841 CTACCAACAT CGGAACCTTG CAATGCCGAC GTAAACTGGA GCTGGCTCCT GTGTGACGAG
48901 GATATAACTC GGTCAATTAG CGGGCAGTCT ACTGTTTGCT TAGTTGTCTC GCCTACCCTG
48961 ACCGCCTGGC TGGTGCTCCC GGGGGGCTTT GTTATTAAAG GCCGCTACGA CCTATCAAGC
49021 GAGGATTTAA TGTTTGTTGG TTCGAGATAT GGCCACCCAG CGTCGTCACA TTCTTAAATC
49081 GTTTTTTAAAC AAGGAATGCA TATGGTTGCG ACACCCGGGT ACGTCCGCGT TTGTTCCGGT
49141 ATACACCGCG ACCACTGCGC ATTCTGCCGT TTTTGACCCG CCGTAACCTA CGGAAAATGC
49201 GATGTCACTT AACTTTTTAA ATGTTATGAT CGTAATCATG AAACCAAAG AATTTGGCCC
49261 GTGCGTTACC GTGTACATGA ATGGAGATAT TCTAGATTTT TGTGCCACGG AATCTGTGCG
49321 CATAAGGGAC GTGCCTGTA GGGCGGACCT GTGTTTAATT CGTTTTGGTA CCCTTTCTAA
49381 TGCGCCGAGG AGCGTTCCGA TACCCGGGCC GTTGAACCCA CATCCGCGAG AAACCGTGCC
49441 CGGGCTAACA AAACAGGAAA TTATATACAC TTCGCAAACA GTGCCAAGAG GACAGATACC
49501 AGATGCCATA AAGGGGAAAG AGTTCACCA AATAAATCCG TTTTGTGGT TTGACGGAGG
49561 GCGTTTTTGG CAACTGTTC TCTCTGTGGA TTTTATGCTG CTCTGTCCC GACTCGACAC
49621 AGTTCCGTCC CTGGCCAGAA TCGTTGGGCT TCTTACACAG TCGGATAAGA GCACGTGTA
49681 AATTTGTACG GGGGCCACG TACACGTAA CCCGTATCGG GGATACACGC CACCTGACTC
49741 GCAAGGGACC TCACCTCGT GCCCTGCTC TATCTCGTGC GGGGCCAGGC GCGCGCGGGA
49801 TGTCTGGTT ACCGGACACG TTAATCTTTT GATCCTGCTC TTTGACCCCA AAGCCTCCCC
49861 CAAAGTGACC AAGCTGCGTT TAAAAAGAAA CCCACGCCCC GTACCGATAG AGGACGCCAT

```


49921 GTCGGGCGTC ACGGCCGAAG GGACCGAGGT GCAACCCACT TCGCTACCGT GGGCCCTCAT
 49981 TCGCCTGCCG GATTTAGCCA GTCGCGTGAT GCTATACGGC TGCCAGAACT TAAAAAGCAT
 50041 CTGCTTACGT TCTTATTGAA GCACGTCGCA CACATCAGCG AACTCGGCCG CCGTCCGGGG
 50101 CTCGCGTACA CGATGGTTCC GTTTTCCTTC TTTATGTTCA GGTCTTTCGC CGGAAACCAC
 50161 CTGGATAGCG TGGCGATGAC CTCGGAGAAA ACGGCATTGG CGACGTGTTT TTGGTGGGCC
 50221 ACGTAACCCA CGTGAACGTT TTCAACCGAC GAGAGAAGAA CGCTGATAAT GGCAGCCACG
 50281 ATCCATGTTT TCCCGTGACG ACGCGGGATA ACAAAAACGC TGGCTTTCCTG CTTAAACGTC
 50341 TGTAACACGT CGTCCGTGGT TTCAAATAAA CCAAAGTGTT GCTTAAACGT GGCAAATAAC
 50401 TGGTGTGTCT TTTCGGGTGC TTTGATAGAC GCGATAAAAT AAAACGTGTG CATGATTAAAT
 50461 TGTTGTTGAA AGGGCTCAAG GCAACAAACC CCGGGCACGT AACTCCCATT TAAAAATGAC
 50521 GACAGGTTGG CTAAAACTG CCGCAGTTCT GCATAAACCG GGCACCTCTAG GAAAGCTTCG
 50581 TGGGTCCGTT GGGCCGATTG GTATTCCATG TACTGGTCCCT TGGCGTTTGC CATTTGGACC
 50641 CGACAACATG TTTGTTTAAAG GTAGTTTGTG AGTTCCTCGG TTAACCGGGG CAACGTAGCG
 50701 TGGCTAGAAA TTCGGGGCTT TCCCAACGTA GGGGCCGGCA TGGGTTCTTG AACTCTGCGG
 50761 TACGTTTGAA GATAATCGTC TAAAACAGAA CTATATGCAT TAACCGCGTG AATAACTCCC
 50821 AAGCATGGGT GGGCCATTCTG TTCGGTCTTG TCGTTGCCCG ATATAATAAC GGGCGGTTGC
 50881 CGAAACCAGT TTTCGCAACC ACCGTCCGTG ACCACGCGCA AGTTATTTTG AAGACGTTCCG
 50941 CGATAGCTGG TTAACAACAT GTTCCCTTCA AGTTTTTTGA ATAACGGGCA CCCCGAAACG
 51001 GAACGCCGCT TCGTTAAAGG CGTTCAGTTA GCTTTAGACC TGTGTGACAA CACTCCGGGA
 51061 CAGTTTAAAC TAGTTGAAAC ACCTCTTAAT AGTTTTCTTC TGGTATCCAA CGTTCTGCCG
 51121 GAATCGCGCC CGGTTAGAGA CTGTCCGCAG CCGGAAGGGT TTGACTTTGA ACACATTAC
 51181 CTCCCAAAAC TAACACGCAT GCAGCGTGTC CTGGGGCGAT ACTGCGACCA TGTTAACAAC
 51241 GACGACACGT GCGTTAACGT AAAGGCAAGT TCCTCGAATT CACAGGTGTC CTTGTTTTAT
 51301 CTGCCGTATG GACAGGACGA ATGGAATTGG GCGCTCACGT TAAGGAAAGA CAAGTTGGTT
 51361 AAAATGGCTG TAGAGGGCTT GTCAAATCCC ACGACCTGGA AAGGTTTAGA GCCCGTGGAT
 51421 CCTTTACCGC TCATATGGCT TCTGTTTTAC GGTTCGCGT CGTTCTGTGC GGAACAGAG
 51481 TGCCTATATG AACGCAATTT TGGTATGAAG GGACCCATAC TCTTACCGCC ACATATTGAT
 51541 GCCCCCAAA AGGACGTAAT GACTTTGTG CATCATGTAA TTAAGTACGT TAAATTTTAA
 51601 TACGTGAACG CCGGTGGGGG TCTTGAAACT GAACCGTCCC CGCCGTTCTGA GGCCTCGCGG
 51661 TTGCGCGCAG CCATCGCTCG TCTCGGGGAC GTGGAAGCGG ATGACGCATA CCTGTCCGCA
 51721 AAGTGCATGT TGTGTCACCT GTACAAGCAA AACGATACGA TTTCGATTCA TGAAACACAC
 51781 GTGGGCGGAG TCATCGCATT AGGCGGAGAC GGTGCGAGAT ATATAACGTC TAGTGTTCCG
 51841 GCTCAACGGT GCACGAGTCG GGGAGATTTT GTTTTAATCC CCCTGTACAA CATTGAAGGG
 51901 CTCGTAAGCA TGATAAGGGA ACATGGCCTC GGCAGCAGCT AAAAAATGT TAATTAAGTC
 51961 GGAGCTCGAG TCGGAAATCA ACAAAAAACT GTCCATCTCC GTATTTGACA GTTTTGGGG
 52021 CGACAGTGCC GTGTTTAAACG CGCAGTATAA GGAACCCAGG GAATCGCTGC GGTCTGACAA
 52081 CAGCCTAAAA AAGAAGGACG ATCTGGCGAC CGTTGTGCGA ACGCTAGAAA CGTCGCTGCG
 52141 TGAAAAACAA AGCGAATTGG GATTACTAAA GGGGTTTAAAC AGGAAAAAAA TTGAAGAGTT
 52201 TGACCGTGTG GCGGACGCGG TTCGCGACCT CAAGGACGAG CTGTACGGAG AACTGGAGAT
 52261 TCTAGGTACG CTTGACAATG AATCTGTTCC CGTGGAAGAA GAGTCCCCCA AGGACGACAT
 52321 TATTAGGTGG AAATTGGAGC GTCTGCCCAG AGTGTGCCCC AAAAGCCCTT GATCCCATT
 52381 CCAAGGTTCA GACTGACGTC GACAGAACAG CATCGTCCCA TATAACCGTC ATTAACACAC
 52441 GTAAGACGAT CGCCCAACTG AAGATACCTA ACAACTGGGG CCAGTGTAGT CACCAGGCGA
 52501 CGGACTGGAC CGCCGTGCTC GGACGCGGCT CGTATGGTGT GGTGAGGTCC ATGTCTCTCG
 52561 GCCGCTGCGT TAAGCATTTT GGCAGCCGGC GTGAGTTTTT TTACGAGTGC ATTTTAAACG
 52621 ATATAGTACG CGCCTGCCGG GAGAAACATC CCCTGAACCG CGGGGGTGAC CGTATACTAT
 52681 GTTTCCTAGA GCCGTGCGTA CCATGTGCGG CCCTGATATT CCCGAGTTA ACAGGGAATC
 52741 TGCTAAACGC GGATCTTAAA CACGTGAACC CTGAACGGCT GGCCGTTGAA TTCTCTGAGC
 52801 TGAGGGAAGG CGTTAGTTTT CTAAATAATA TATGTGGCAT CGTTCACTGT GACATCAGTC
 52861 CAGAAAAATAT ACTGATAAAG GGGGAACTGA CAACTGCGTA CGGGAGACTT ATGATCGGAG
 52921 ATCTAGGGTC CGCCTCTTTA CACACGGGAA CCCCTTGGAC CGGAGTGATG GTGACCTCCA
 52981 AACTCGGGTT CGTGCAGCAC ACGTACCATT TTAAGGCACC GGCCAGATTT ATCTGTAAGC
 53041 ACATTTACCG GCCGTGCTGT CTCCTCTACC GGTGTCTGCT GTCGTGCGCC GGGGGCCCCG
 53101 AGGCGCATAT GCTAAATCAG CCGTTCCAAA TCACTCCACA ACTCGGTCTC AATATGACA
 53161 TATCGTCCCT GGGTTATAGT TTGCTAGCAT GCCTAGAGAA ATATCTTCAG CCAGCTGACC
 53221 CATTTCCCCA GCAGGGAGCG TTGGCGGACG CTTCTCCGA ATCCGCCAC CCATTGTTCT
 53281 ATTTGCGTTG CATGGTGCCA AGAGTAGTCA TCGCCGAGAT TTTTCTGTT GCCTGGGACG

53341 TTCCACTCGA TTTAGGCATT GACTCATCTG GCCACGCGCC AGCTATTCCC CTGAGAGAAG
 53401 CGTACAGGCG GTTTTTTGCC AACCAGTGTA GTTTATATAG GGCGCAATAC AAAGAGGATG
 53461 CGTTAGAAAA CGCATCCTCG CGGCTGTGTA ACTCAAACT TAAACTAGTT CTCCAGAAGC
 53521 TGTTGGTCAG GGACTACTTT AGTCATTGCG GAAACTGCGG AGATCATGGA TTTTCTCTCA
 53581 GATGAGCCGA TGGTTCAGGA GATGGCGCTT CTCGACATCG ATGAGCAGCA GCGGCTCCTC
 53641 TCGAAAATGA GCCTGGCCAA CTTTTTAAAA CATGAGCGAG TAAGGGCGTT TTTTAGCGAT
 53701 AACAAAAAGG AAATAAGCAT GCCGGCTATA CGGTTCGTGT ATAATTTTTA TCTATTCGCC
 53761 AAGGTGGGAG ATTTTATCGG CAACACCGAC GTGTACGATT TTTACGTCAC TTGCGTGTTC
 53821 AGGGGGAGGC GCCTGACGCG CCTGTCGGAA GTGTACGACG CGTGCCTAAA CATGCACCCG
 53881 CACGATCGAC ACCACGTGTG TGCATTGATA GAACAGGTCA CGCGCGGCCA AAACATCAAT
 53941 CCTCTGTGGG ACGCTCTGAG GGACGGCATA ATTTTCGTCT CAAAATTTCA CTGGGCCATA
 54001 AAACAACAGA ATTCGTCCAA AAAAATTTTT AACCCTGGC CTATAGTCAA CAATCACTTT
 54061 GTAGCGGGCC CGCTCGCGTT TGGACTGCGT TGCGAGGAAG TGGTTAAAAA GATACTGGCG
 54121 ACGTTGCTGC ATCCAGGCGA GCGCAGCTGT GAAACTACG GATTTCATGCA GAGTCTCTC
 54181 AACGGGGTTT TTGGCGTCTC CTTGGATTTT GGAATTAACG TCAGGTCTGA CCCAAAAGAC
 54241 GGTTTGGAGT TTCACCCAGA CTGCAAAATC TATGAAATAA AATGCCGGTT TAAGTACACT
 54301 TTTTCCAAGA TGGAGTGTGA CCCGATTTAC GCTGCGTATG CTAACTTTA TCAGAAGCCC
 54361 AGCATGCAGA CGCTTAAGGG GTTTTGTGAC TCCATATCTA AACCGGCGAT CGAGTTTGT
 54421 GGAGAGGACA GGCTCCCCAG TGAATCGGAC CATCTGTGG CATATGACAA AGAATGGGAG
 54481 GTGTGTCCGC GGAAAAAGAG ACGCTTAACT GCAGTACACC ATCTAGTTAA AAAGTGCATG
 54541 ATTCACAAC CTACGGCGCC TTCTGATGTG TATATATTGT CAGATCCGCA GGAAACCGGA
 54601 GGCCAAATTA ATATTAAAGC TCATCTGAGC GCCAACCTAT TTATAACGT CAGGCATCCG
 54661 TATTATTATC AAGTGTGCT CCAGTCTCTC GTTGTACAGG AGTACATCAG TCTCTCCAAG
 54721 GGAATAAAA ATTTGGGAAC CCAGAAAAAC TTTATAGCGA CTGGCTTTTT TAGAAAACGG
 54781 CAGTTTCAAG ACCCGAGCTG CTGCACGATC GGTGAATTTG CCCCCTTGG TCCACACGTA
 54841 GAGATACCGA CCTTTTAAT CGTGACACCG GTGTATTTTC CCAGCGTGGC CAAACACCAA
 54901 CTGGTGAAAGC AGGCGACCGA ATTCTGGGCG GCTAGTGCTC GTGAGGCATT TCCCGAGCTA
 54961 CCATGGGATT TATCCTCTCT GTGTGCAAC GCCCACCAA CACCGTAGAT GTGAAGGGGG
 55021 AGCCCATAGA TGTATCCAAA GAATTCGATC CTATTATAGG AGAAGAAAGC ATTGTCTTGT
 55081 TAACGGCAGA TGGGACTGCC CCCGCGGCGC TGTACAAACC CAAAACCAAG CCATCCAAAC
 55141 ATAAAAACAA TAAATTGTCA GATTTTGTGT AAGCATTCGT ATCTTTATTG GAGTGGGGTG
 55201 GATGGTGTGG GGTGGAAG GGAATGGGAT TGAGGGGAGG ATGAAATGCT AGAATCATAT
 55261 GTATTTTGGA TATGCATCCT CGTAATCGCT CACGTCTTCT TCTGTTTCAT ATAACGCGTT
 55321 CAGTTCCGGG GAGTACTTAA CTTTTGTCTG CTTCTCTTTA GGGCCTTGAG GAAGGGGTGC
 55381 GTATTCGGGC GACTTTGCGC ACCATTTCCA ATCGTTTCTG ATAATTTCTA AGATGATGGC
 55441 TAGGATGCAA GTGATCGGAA TCATAGAGAT GTTCACGGCT ATGACTTTGT GCAGGCTGGC
 55501 AGATATGAAT ACCTTGTCGT ATCGAACGAC GGGAAAGAAGC AGAATCAGGT AACTGACAAA
 55561 AACGCCAACG TAGAATCCGA TCTGGTGCTT TAGGTACTTT ACTAGAAATA GTTCTGTGTT
 55621 GATATACCAA GCTATTGTAA GGACAAAAA CAAGTTTATT GAACCAAAGA CAATATCGGA
 55681 AACGAGCATA TAGAACTGT TTCCAATAGC CATCATCGTT CCGAGGGAGA ATACTAACAT
 55741 CTCCATGGCT ATTAAGGACA GATAAAGATT GGCGCCAATC GGTTTTCCGT AACGCAACAG
 55801 GGTGTCTAGC AAGCTATTCT CAGGAATCTG CTGCTCTAAG ACGCGTAGAG ACCAGGTGGC
 55861 CGAATTGCAC GATATCATAG CCTGGACGTG CGTAAACGAT AGGCAAAAAT GTATACAGTA
 55921 TACAAACGAG GCTAAAAGTA TATGTTTGTA CGACAGAACG TGAATAAATA ACTGGATGGT
 55981 CCACAGCCTC AAAATAGACA TAAAACTAC ACTGTGGGAG CCTATGAGCA CGATCCATGT
 56041 CTGGAGGCTG GTCATTGTTG TCGCGTGCAC GCGCTTGGCC TTGAATATGG CCAGGATGGC
 56101 CCACGCATAG TAACACAGCA GATATCCGTC CACCAAAAAC GCCACGAGA TGTAGACAAA
 56161 CATTTCTGGT GCTTCCAAAA ACAAAGTCGG CGTCAGATGT TTAGCAGAAC TTCTGACCGT
 56221 TAGGTTTAAAC GCGCTGTAGT TGACCAACGT GTTAAAGTAG CACGGAAATC CAAGTCCCGG
 56281 GAATGTGGCG GTCAGTGGCA CTACCGCTGA CATTATAAAC ATAAGTCCAA GAATAACCAG
 56341 TAGTTTTACC CATGACGATA AGATAAACGA GTCGCTCCGT GAAATTTTCA TAGTTCAAAG
 56401 AATCTGCTCG CGGGTGCGTT CGGCAAACTA GCAGTAAAT CAGCAAGTGG CTTACATGTT
 56461 ACGGATTTAA ATAGGCTCCG CTTTTAAATA TCACATTCTG TGCAAAGGAG TTGAGCCACG
 56521 GCACCATGAA CGCCCGGGAG GTGGCACTCA CGGGACATGT TTTGCACATA TCGTGACATA
 56581 GCACGCACGA GCGCGAGAAA TTAATAATCT GGCAGGTTCA TTTACTTGTA TGTCACAAT
 56641 GCGGAATTCA GGGAGATGCC GCATATCTAT TTGTCACCGA AACATTAAGC AATACTGACT
 56701 GGGGAAATAT ACCGGCGATA AACCGTCACG CACCGTCCAT AAATGAGCAC GGCCGTAATT

56761 ATATGCAGTG GGAATCCGT ACTCGTTTAC GGAATCCCAT CATTCAATTG TTAAGTCGCC
56821 AGCCCGGTGC GGTTAACGTA AGGGTCAGCG AGCCGAATAT GGTAATAGTG GGCTGCGAAC
56881 GAGCGTTGGA TCACTCGTGT TCGGTGCGCG TGACTGGAGC CTATCTTCAT TGCGATACCA
56941 CTATGGACTT TAGTTTGGAT TCTGTTGTGT CCCCACCCG CGAATTTTGG TTCTCAGAGA
57001 TGTTTTCTCA CTGTTTAGTT TCCAACATTG AAGTTTACCT TAAAACAACG GCGGGGTTAT
57061 ACTATAGGGC ATCGAGTGCC ACGCAATGCC GAAAAAGGGC GAAAGATGGC GCATTGGGTA
57121 TTCTTGATAT CTTTAATTGC GAATCTCGTG AAATACAAGT TGCCGGGCAG AAGTACACCT
57181 TGAGTATCGC CACCGCAACA TTTCACGTTT TCTGGGTGGA CGAGGCGTGT ATGTGGAACG
57241 GGGCCCTGGC CGAATTTTTT AGGGCGCTGC ACAATAAGTT GTTCGGCGAC CGGGAAGGCG
57301 TAGCGCCAAC GTTAACGTAC GTGTGTCCGG GGGCCACTCC GGAGGGAACC CCTTCCCCC
57361 CCTACTTTTC CGCGTTTCCA CACCTCCCGC TCGTGTTTGG AAGACCGCGA AGGCTCGACG
57421 TAACCGCGGT CCAAGAACTC CCAAAAGCAC AAATTGCGGT ACACTGGCCC CCGTTTAAAG
57481 ATTCAATCTT AGGGGATCAG CTTCTCATAC CTGGCATTTC ACCTAAAAAG CCAGGTACCG
57541 TACCCGTTTC TTGGCCGCTT TGGGTGGAGG ATGTTAACCT GAGTCTCTGC GAGACGACAG
57601 AAAGCGTTGC CCGCATAGTC GACCCACATT CTATAGTAAT CATAAAATTT TCATCACTGT
57661 TGTGCCAGCA CCTAAAATGC CACCGTGCGT TTGTTAAAAA TGAGTTAGAA TACATAGCAA
57721 CCATCTGTTT CAGCGACCTT CGCCTCTTCA TCCAAGAGGA ATACAACCGG TTAATTGCCA
57781 CCATTTTTTAC GTGGGCCGCG GCGAGCGGGT ATACCTGGGC GGCCATTGAT AAAACAACAG
57841 TATTCATCAA GGCTCCCCAG CTCAGCGCAG CTGTAAGTGG TTTCTGCCCC TCACTAAATA
57901 GTTGCCGTAG GAAACAATGT TACGAAGGTT AAAAATAACA GTTCATTTC TTTACAGGA
57961 ACAGCAAAAG GTCGTGACCC GTCTTGAGGC GCATTTGGGA CTTCCCGTAC AGGAAACTTC
58021 CCACCCGCTT GACTGGCTCA AGTGTGAGGT CTGCTCCGCG TCCGTGTTTT TAAAAATACC
58081 AGCCGGGGTT TTGTATGCCG GACTCGCAAG AGACCCACC AGGGAAGCAA AACGGGACTC
58141 GTGGCTGGAC TGTCTAGTAG AAGGCGCGAC GTTGTGCTT AACAACTCAG TGTACCAGT
58201 TGGGGCGCTG GCGGGTATCT TACCCACCCT TTTTGCCAA AGGCGGTGTG TTAATTTTTG
58261 GCTGCTGCCA CGCGCGTGGG TAAAATCGGC GCCCATATGC CCTCCCCTAC CGATTGACTG
58321 TGTTACGCCT CCACAGTTTG TCGTGACAAA CCGTGGACCA ATCTGCTGGT ACAAGGAATG
58381 GCCGTTACCG GTTGACGTTG ATTTTATGTA CTACCTACAG GAGGCACTAT GTGTTTTTAG
58441 TGTTGTGTCC AACGGGGAGG GTACGGAGAG TCACGCGGAC AATATACGAC AATTAGAGAA
58501 GTTTGAAAAG GTACTATGTT TATTTTAAAA CAGAGTCTGT CTGGGGATGC TGTGTAGGCT
58561 GGTTATTTGA AAATATTTTA ATACCGATGC GTTATGAAGG TGTCTGGTAA AAATTGTGCC
58621 GCAATAAAAT ATGTTAAAAG TCTCCGCGTG GCCCTCTTCT TCTCCAACGT TCTCTGTTAG
58681 ACGAAAGGAT TCCAAATAAA TGGGTTTCAG TAAGCCTTTC ATGTCGCTCTG CGTTTTCTGC
58741 CAACAGCTTA TGGAGTTTGA ACCGCACTAG GGGCGGAACG CGCAAATGC CTTGGGGTGG
58801 GTTTAACTCG TGGTATGCCG CCAAGGTCGA CGCTATCACT TCGATCCCAT ACAATACAAA
58861 CGCGGAATCA TTACACGTAT ACCTCTCGTG TAGGTACCTG GCCCGTCAA GCGCGGACAG
58921 GATAAATGAT AGGGGGGGCT TATCGTAGTT TTCCAGCATA GAAAGAATGC AGCAGAGTTC
58981 GTTTACGCTC GCGCTCGCCG GCTTAAACAG CTGCACGCGG TCAGAAAAAA CGTGCGGATA
59041 TATGTCCAGT GCGTCGATCA TGTCTCTGTG TTCGACCACG CACGCAAAGA CAAACCCAGT
59101 AAACGTTGCC GACTGAAGCC TGGTGCGCAC GTGCACGCGT AAATCAGGAA CGTTTAGTCG
59161 TCCTCGAACA CACAGCTTAG GCGTATTGGA AGCCATGCAA ATGCTATTTT TTTTATGTAC
59221 TTCCAACATC AGTCGCGGAA AACTGGGATA ATTATAGGGC CCTCTGGACG AGCATTCTGT
59281 TTCAGGCATT ACCGCCCTCAG ATCGGTGCTG CTCCCCCAT AGACGCTTCA GTATTTGGTC
59341 CATCGGTTCC AGGCTGGCTA ATTTGTTTCG AATATTTGTG GCCTATGTCA TTTATATACA
59401 CAGACAGCCT GCTGTCCACA TACAGCTGGT CTGCAATATC GTGTAACTT AAGGAAATGA
59461 GAGAGTGATT TATGAGGTCC ATGTGAGTCA GTTTGGCGAT TATGTACGTA AACGGGCCTA
59521 AGAGAATGGA AACCCTGTCC TGCGAGTAGG CGATGCTCGT TCGCTGCCCC TGATTGTCGA
59581 CCACGGGTGT GAGGTTGTAC GTTTGAAACA TTTCCCTTC CCACAGGCTA GTTAGCTCTT
59641 TGAGCATCTC CATAAACGGA GGGACGTATT GTGAAAAAAA GCTGTTTACT ACGGAGCTGC
59701 CTTTAGGGAT GTGACATTTC GATAGGTTAA TGGTTGGGTC GCGCAGACCG GATAAAGCCT
59761 GCAACGTATT CTGAGTGAGT ATATTAATAT CGTGTCTGGG CCTGCCTCCC TCTGGTAAAC
59821 TCTGAAGCAA CTGCGTTTCA ATGCATTGAA TCTTCTTTAC GTAGTCGTCT CGTCTTTCT
59881 CAAGGTTAGA AATTGTATCG AACTGCTCGT TGATCTGGTT CGTCAGGCAT TTGAACACGG
59941 TATTTGAAAC CTGTTTCCGG AGACCTGGG TCGTACTTTC CGTACCGGTC CCAAAGAGCT
60001 TGTTTTTGTC CACAATGTTT TGAGGACGCT CTGTGACGAA ATCCTCAACA ACGTCTGTGA
60061 TGCCGCTCAC TGTTTTGTTT TCCGCGAGCT TTATCAGCAA GTTTAGGAGC TCCCTCTTGG
60121 GGTCGGTTTT TTGAGACGAT TGCTCTAAGC GAGCCAATAT GTCTTTTATC ATGTCGTTGC

WO 00/28040

PCT/US99/26260

```

60181 ACGTGCTACC GACCAGCGCT TTTAGAGGCG CGGTATTTAG TAACTGACAT AACTTTGCGT
60241 GCTCCGCGGT CCTGTGACAT GTCATAATCG CGGTAAATAA CCGGTACAGA GGGCTATCAA
60301 AGGCGACGCG TCCATTGTAA ATTATAGGCC GTGAAACAAC TTCAACTGTT ATATCTTTTT
60361 GTCTGTAGGT GCCGAGATAA GCAGCCTTAT CTCCGTAAA CTCCACAGAC ACCTCGGCGT
60421 AGTCTGGAAT ATAAATAGAC GTCACATCGG TCATTATCGA GGTAATCTCC TGTGCCAGTT
60481 TGTGACAAT CCGCGATATC GTAACGTCTC CGGAAGCGTA CGTTTTCTC ATCTGTTGAC
60541 AGTGTGCTTG TATCCTGGCG ATCGTGTGCG CGTCGGGGGT GCGCCTGACA ATAGGCACCA
60601 ACCAAGGGC GACCACCCAG TCGACGTATC GTTCGTACGA TAAAACAGTC CTGGTGTGTA
60661 GTACCTGATT AATAGTGTT AGTAACAGTT GATCGACTGT TAGACGAACG GTACGTGCCC
60721 ACGATTCAAA CGTAGACCGT TTGAATTCCG GCGTCAGGTG CTCGACACCG CGCCAACGGG
60781 TCTTCAGGGT GGTCTCGAAG TTGGTCCAGT CTTTAAAGAC GTTGTCGTAT GTGCAGCTCC
60841 CCAATGCCGT CTTGTACAGG TGTATGAACA GCTGTCTTCC AAAGATCCCT GGATTTGAA
60901 GACTGGAGTG TAGCGTTTGA CCGCGAACGT ACGCGTACTT GCCCTGTAGG ATCTCGAAAA
60961 GCGAGATGGA GAGTCCGTC GGATGGACCA AACACGTCGA ACCAAATCCG GGGTTCATCT
61021 TGAACATGAC GTCCGATGCC AAAGTCAGGG GTGTGCTGGA TCACGTCAGT CGCCTGTCAA
61081 ATATAACTAC CAGCCCACCG GAAATGGGT GGTACGACCT GGCTTCGAT CCGGCTGAAG
61141 ACTCCGGGCC GTTCTTGCCG TTTACCGTTT ATCTAATTAC GGGAACTGCT GGTGTGGA
61201 AAAGTACCAG CATATCGGCC CTGTACCAA ATTTAACTG CCTGATCACG GGCGCGACCA
61261 CCATACCCG ACAGAACCTA TCGCGTCGCC TAAAGACGTT CTGTCCCACG ATCTTCAGCG
61321 CTTTTGGCTT TAAGAGCCGA CACATCAATA TAGCCGTCAG AAAAGCTCAT CAGACCGGAG
61381 CCGTATCCAT AGAGCAAATT CAGCAACAGG AGCTATCGAA GTATTGGCCG GTTATAGTGG
61441 ACATTATGAA AGAGGTTATG GCGAAAAAAC CCAATGGCAT GTACGGGACT ATATCCAACG
61501 CGAATTTTGA AACCCTCTCG AGAATGACCG GACCGTGTTT ATGGACTTCC AATATTATTG
61561 TAATCGACGA GGCCGGAACC CTGTCTCTT ACATACTCAC CACCGTCGTG TTCTTTTACT
61621 GGTTCTTAAA CAGCTGGCTA AATACCCCTC TTTACCGCCA GGGGGCGGTT CCGTGCATAG
61681 TATGCGTCGG TTCGCCAACG CAGACAAACG CGTTCAGTC AACTTACAAC CAGGGACGC
61741 AAAAGACGGA GATATCGTCG TGCAGAAACA TCCTAACATT CATGATAGG AAGAAGTCCG
61801 TATCTGAGTA CGTACACTTG GAGAGAAACT GGGCGCTGTT TATAACAAC AAGCGCTGCA
61861 CCGATCTGCA GTTCGACAC CTTCTAAAAA TTTTAGAGTA TAATCTTCCC ATTCCTGACG
61921 AAGTCATGAG TTACGTAGAC AGATTTGTG TTTCTAAAAG TAAGATTATG GATCCTTTAG
61981 AATACATTGG CTGGACCCGA CTCTTTTTGT CACATAGCGA GGTAAAGGCG TATCTAACAA
62041 ACCTACACAC ATGTCTAACG CTAGGGGGCG ATACCAGGGA CACGAAGCTC TTTACCTGTC
62101 CCGTGGTGTG CGAGGTGTTT GTGAAGCCGT TTGAGGAATA CAAGCGGGCC GTCAACCTCA
62161 CCAACCTCAC CGTGACCGAG TGGGTGACAA AAAACCTCTT TAAGTTAAGT AATTATTGCG
62221 AGTTTGTGGA CCAGGACATG TCCATAGTCA CCACGGAATC CACTGAACGT CACTACCCAGG
62281 TTACCTTTAT CACCAAGTTT GTTAAAAACA GCCACGTGTC TTTAAATGGA AAAACAAAAA
62341 AATGCATATG TGGGTTTCAG GGTACGTACT TTGAGTTCAA AAGAATCCTA GACAGCGAAC
62401 TCTTCGTGGA GACGCATTCG CAAGACCGTC CGGAATACGT ATACGGTTTC TTAACACGC
62461 TACTGTACAA CGCCATGTAC TCGTTTTACG CGTACGGCGT GACTAGGTCA CACGAGAAAT
62521 ATCTGCAAGA CCTAAAATTT GCACCCCTCC CGGCCGCTCT GGCAACCGGG CGTGTAGACC
62581 TTCAAACGGT TCGTGAAGAG TTAAACCTGG AAGACGACAT CTTCTACCAC GTGTGCAGTC
62641 CCCC GCCACC CGCGGGTATC ACCTCCCTCC AGGTTTTGGT CGACACGTAC TGCGCCCTAA
62701 AGGACGTGTT CGCTCCAGA ATAAAGGTGG CGTGTGCTG GTTTGGCGGG GAGTTTGAGA
62761 AGGAAACGTT TTCCGCGTTT ACGGTTAACA TGGTCTGTAAG GGACGGAGTT GACTTTGTCT
62821 CCCCTTCAGA ACGTCTCAAC GGGCTGTTGG CGTTTGATC GACCGTTGAA TCGTATAAAA
62881 TTAAGGGGTA CACGTTTTTA CCGGTAGCGT TCGGTGCTG TCAGGGTTTG CCACTCAGTG
62941 ATGACCTCAG GAAGAAGATG CCCTCCCTGG TCGTGCAGGA CTCTAGCGGT TTTATCGCGT
63001 GCCTAGAGAA TAACATAACC AAATTGACCG AAACCATGGA GGACGGGAGC GTTTTCCAAG
63061 TGTGCTGTGC GGGGGACTAT GGGGTCAGCT CAAATTTAGC CATGACCATC GTAAAGGCAC
63121 AGGGAATGTC GTTGAGCGA GTAGCCGTAG TATTTGGGTC CCACAAGAAC GTCCAGACAA
63181 GCCACGTGTA TGTAGCAATA TCAAGGGCTG TTAACATAA TTATTTGGTC ATGGACAGCA
63241 ACCCCCTTAA AACCTCCTC AGAGAACCAG TCGATAACAC CTCCGCCAAG CATATAGTCC
63301 GCGCCCTCCA CAACCCAAAC ACAACCTCA TCTACTAAAT AAATAAAAC AAGCAATGG
63361 AAAACATTGT GTTTTATTC AGTCCAACCA CGGCCACGGA TAGTTGTCAT TTCCACACAC
63421 CGGGGGGGTG GCCGCCATG TTTGACGACC AGAAACGCCC GGGCCCTCTG GGTAGAAAGT
63481 AGCCCCGCC CCGTGGTGCG AGGTGCATACG TCTCTTAGGG CCCTGGGTTG TACCAACATA
63541 AATCACGTG TCATCACCGT TGCAGTCCCT GCGTGACGCG CGCCTCTTGC AGGCGGCACG

```

63601	AACACCGCCG	CTTGTAACGT	GATCTGCATC	GTCGTCTGCTG	TCTGAAGATG	AACACAGGTC
63661	AATCACATCA	GTGGCGCCCG	TGCCCTCATC	GGCGTCTGAT	TCGTCCCATG	TCTCAACAGA
63721	GCCTCGGTCTG	TCCACTTTCGT	CGTCATCTGA	AATAATAATG	GTCTCTTGTC	CTGCAGTTGA
63781	TCCAGCAACA	ACAGGTTCTT	CTTCATCGGA	AGACCATCCG	CCCTCTGCCG	GTGATCTAGA
63841	TATATCACCT	GACCAGGCGG	GCGAGGCCCG	TGGCGAAAAG	CCGTGAGCTT	CTCCGCCACT
63901	TTCATCAGTG	TCCTCGTAGT	CATCTATAAA	AAAATCGTCT	TCGCTGTCTG	ATTCAGATGA
63961	CTGGGGTTCG	CGGTGTTGGC	CAGTAACCAC	CGCAACGGGC	CGCGGACCAC	CAAACGCGGT
64021	CAGTGGCGCG	GGCGCGCTCG	GTGGTGTGGT	GGCACCTGTC	GAAGTAATGA	CGGTAGGTAG
64081	CCGGCCGCTC	TGGTTAAAGG	ACTCACCGTC	CCGTGCGTGC	GGATCTATTC	TAGGTGGGGA
64141	GGAGACCGGC	GGTTCGTCTT	CTTCATCCAC	ATCACTGTAG	TCGCTGTTCT	CCGAATGAGA
64201	GTCGGTTTCG	TCTGGCGTTT	TTGGAGTAGT	GGGAGGGGAA	TCTTGGTCAA	AAACATCCTC
64261	AGGTGCAGTC	ATGTCAATCA	CTGGGGGGCC	TCCGTACCCG	GGCGGTACCG	GCAACCCCGT
64321	ACGGGACCCG	GCGAACAAAA	AACGTCTTGT	TCTCTTTTTC	CTAGGTGCCC	CGGGAATCGG
64381	CAGCATCCTG	GGAGTGGCCG	GCGGGGTCTT	TGACGGGTCTG	GATAAGAAC	TAGCCATGGC
64441	CGAAACGTTT	ACCTGTAAAA	CGCACTGCCT	ATCCCCGATC	AGTTAATATT	CCAGTCAACG
64501	GCACCCCTCC	GATTCTGAAC	TAGATAGTCA	TTCCGAAAGT	TAAAATGGTT	GCAGCCTAGA
64561	AACTGCGGCC	AGGGAGAACC	GGTTGCCGCG	TGGGCGGTAG	CCAGGGGAGA	CGGATGGCGC
64621	GCCTTGAGGA	CGAGATGTCT	CTGTCCGTTT	ATCAGCGTCTG	CCTTGTCTAT	AGCCTTTCTT
64681	CCCCACAGCA	TAAAAACGCA	CCTCTGAAGC	TTGGCAGAAA	GGCAGCTTAT	TATGTAGCTG
64741	GTGAACCAAT	CCCAGCCAAG	GTTGGCGTGT	GACCCCGCCT	TCCCTCTTTC	CACCGTCAGA
64801	ATGGTGTTTA	AAAGCAGAAC	TCCCCGTTTT	GCCCAACAGT	CTAAGCACCC	GTGAGAAGGA
64861	GCGGTGAACC	CAGGTACAGT	ATTGGCTATC	TCTTTAAAAA	TATTTTGTAG	GCTTGGAGGT
64921	ATACTGTAGT	CCGGAGCAAC	GCTAAAGGCT	AGTCCGGTGG	CTTGACCGCG	ATGGTAAGGA
64981	TCCTGGCCAA	GGATCACGAC	TTTAATATCC	TCCGGTTCGC	AACAATACGA	CCACCACATA
65041	ATTCTATCTA	TCGGTGGATA	AATCACGGTT	ACGTTGCTCA	TATCCATAAC	GCGCTTCAGC
65101	AGAGCCGCGA	GCTTCTGTTT	TAAAAATGGA	GAAAGATTTA	AAAATTCAAG	CCATGAGTCG
65161	CTAAGTAGCA	ACGTTTGTGT	GGAGGGTTCT	TCTAACACTT	CTGGTGACAT	TTTACTCCAA
65221	ACTATTGTTT	TAAGCCAACC	CTCCATAAAT	CCCCGCGTCT	GGTAATTACT	TTACGTATAC
65281	GTGAACTTTT	TGTACTTCTG	TCTGAGAAAT	CCAACAGAGG	TGGCCGCGTA	TAAGCAGTTC
65341	CGCTTTCACT	ACCGTTTATG	TGAAAGTCTT	CAAACCTCGG	TAAAAACTCA	TCAAGACTAT
65401	ATTGCATATA	ATTCAACAAT	TGAAGCTCTT	CTCTGGGGAC	ACTGTAATTT	AACCTGTACA
65461	AAATCCTTAT	AAAAAACGCC	CTAAGGTGAA	ATCCATTAC	ACATATTTCT	GTGGTAGAGC
65521	GATCAGCTTT	ATATCGCAAT	GTTGCTGTAC	ACAGCCCTGG	ACATAAAGCT	AAATTTGTTA
65581	AATGAAAAGA	AGCAATCTCA	AACGGCTCCG	GAAATATAAA	GTCATAAGT	GGTATTATTT
65641	TACAACATGG	ATTTACTACA	AGCCCGGTAC	AACATGTAAT	TAAAAAAAT	CCACATGTAA
65701	TAAATAAACT	TAAGGTATAC	ATACTTCTCA	TGTTTATAT	ATAATATGAA	CGCTAATGCT
65761	GTACTTATAT	AATATGTATA	GAATTATGCC	AATACAGTCA	TGGTAAGTAT	ATTTTAAGGC
65821	ATAATGCAAA	CATCAAAATA	TATAACACAA	AATGCACGCT	TCCGGATATC	CGCCAGCTG
65881	TTAACCAGAA	AATACAGAAA	TGACTACACA	AACACACCTG	AAACCAATTT	TATTCTCAAC
65941	ATATGCAACA	ATATTTTCAGG	GTAACACCAT	GTTAATAAAA	TACGCAGCAT	GCACATTTTT
66001	AGCTAAGCTC	CTCAAAGACA	ATTTCTCTCT	CAATTGATGA	CTCATCAACC	TCGGTTTCCG
66061	TGTTAATGTC	GGAAATATAT	GAGTCCAGGA	TACCTTCGTC	ATCGCCACAA	ATTAATTCCA
66121	GGGCTTGTA	AATATCATCC	AGTGAATCAG	CTGCTAATGT	CAAGGATGTT	GTTTCTAATT
66181	TTAGCCCATC	CAAATGGTGA	GTGGGTGACA	CTTTGGGACA	AGACCCCGTA	AAATTGGCAC
66241	GCTCCACACA	AACGGAAGGA	TGCAATTTGAT	CGTTCACGAG	GGGCAGCATA	TTTATTTTAA
66301	TAACATCAGG	AACCGGACCC	GTCATGACG	CACATATGTC	CATTAAGATT	GGAGTCGTGA
66361	CACCTGGTTGA	ATTGACGGTG	AAAAAAAATG	TATTCGTGTC	ACATGCGTAA	CTATTTTATA
66421	ACCACACGAG	GGCGGAATAA	AACGGGTCCC	CGGCGCTAAG	GCCGTGAATG	CGGCAGGCAC
66481	GGCTCATTGC	CATTTCCAGA	TTTGTTAAAT	CTGTTTGAAC	ATACGAGTCT	AAAATCAAGT
66541	ATAACCACGA	CAAGTTCAAA	CAGGAGGCAA	CGCGGCTGGT	TTCCACCCGG	ACATCCCCGC
66601	TCACAAACCC	GAACCTCTTA	GGAACGCACA	TCAAAGCGTT	CAGACAAAAT	TCCGAAACCG
66661	AAACCCTAGT	TCTGAGCACC	ATCTGGTTAT	AAACTGCGGT	TAAGAGACGA	GCGGCCACAC
66721	ACTGCTGCTT	GTGAGGATTC	AGCTTAGGTG	GCCTGCAGGC	TTGCTGACAG	GCCCGTAGCT
66781	GCCTGGCGGC	GCTCGCGCAC	CTTTGACAGC	CGCACGCCAG	TTCCAGAGCG	AGGCAGAAGC
66841	GCTCTTTGCA	GTCGCGCCAT	ATCTCGGCCA	TAGGAGATTTC	GCTCGCGTGA	CTTTTTAGGT
66901	GCATATATAT	CTGTTGGGTA	ACAAACCTCA	CTCCCTGTAA	AAGGGGAATA	AGGTCCGTTC
66961	TTTCTATCGT	TTTCTCTGAA	TCTATAGTTA	CATCTTTAAG	TATAACCAA	GACGCTAAAA

67021 ACCCAGGATG GTCGACACCT TAAAAAATC GCAAAAGCGA CCGGATGGCT CTATCCGCGT
 67081 TTCCATGTCG TTCAAAGGTA GTCACGATGG ATCTCCAGTT AGACTCTGTC TCCCTGTAA
 67141 CACCCTTAAC TGGAATGGAA ACAGCCATGA CACCGTGAAC TTCCTGATGT CTCCTAAAAC
 67201 TAACCCCGAA ACAGAGCTAA ATACCAATGA CTGTCAACCC TACCCCAAGC CACGCCCCCG
 67261 TACTATTAGA CCAGGGTGAG TAACCACGCT ATCCTTTAAA AACCCATACG TGGAGTTTGT
 67321 AAGGTAAACA GCTCGTGTAT ATTTCAGACG CCTGTCATAA AATGGATACC GACGACAATC
 67381 AGGTAATTAA ACTTTTTTTA TTCAAGATTC AGGAGGGCGT GTTTACAGTG GTGTAGGTGG
 67441 GAGCATATCT CGCCAATGGG AATGGCTGAT GAATCCACAC TTAGTGCTCG GATCAGGTGC
 67501 TCTGTGTACT TTACTAGTGC CGATGAACCT AAATTTGGCG TGTTTAGGTC GTACCAACCA
 67561 AAAAAGTACC TGGCCTCGCC TTTTAGAAGC TCTATGCAAG CTTTAATCGT GTCCAATAGC
 67621 TTGTCTTTAA AAATGCAACT CTGGTACATC TTTATGACAG TGGTCCAAAA AAAACAAAGA
 67681 TTTAAAAACA CGTTAAACTG CGTGTCTTGG TAGTCTCTCG ATATAACCTC CTCAACAAGA
 67741 AAAAATTTTT TAACCAAACT CGCCAGGTAC TGAAACGATG GTACGGACAG GTCGTGAAAA
 67801 GTGTCTATCA TCTCCTTCAC CTCCCCTTTG AAGGTTTTGG TTACACCGAC CATGTGAGAT
 67861 AGGCACCAGC TCAGGGGGGA GGTCCGATCG TGAGGGGGTA ACAATTCGTG GGCCTGGGGG
 67921 TACTCCAGTT TTAGGATCTC CGGCAGGACG CGTACGAGTT CTTGCTCAAA TCCTACGCAG
 67981 CCCGCATCCA CCAGGGGACG TACTGAGTTA ATAAGTCCCC GAATCTATC GTTCGTAATT
 68041 TTGTGGAGCT CCTTTAGACA GTAAACCATG TTGCTCCGAC ACTGCGGTAC GATGAACCGC
 68101 TCTCCTTGTC TGTGTTGCAT GAGCACCTGG AGTATCTTAG ACAGGTATAG GGCCCGTTCC
 68161 ACTCTAAGGG TTGCCGCTTG GTAGACGGGA TTGCCGGCAT TGACGGTCAG TGTGTTCAAT
 68221 TCACCGACTA TCATGCCGAG TGGCGGATAG TGGAACCTGT ACATATGATT TAAAAGATGG
 68281 TCTTTCCCGT AATGGCGACT CATGGTCGTG TTTTAACGTT CACAGGGTGT TAAAAAATC
 68341 AGAAGGTCCT GCGTGGACAA CTTTTGCGGA CTCTCCGAAC CGCTCAGGGA TAAGCTGTAC
 68401 CACGCGGTGC TTCTTATAAA CGAAGCATACT GTCAAAAAAC ATGACCCACG TGACCTAAAT
 68461 AAGCTCACAG AAGAAGCTG TCGATGTATT GTAATGGAAT GTGCCTCCCT GGGTCCCATC
 68521 TCCGGGCTCA TCGCGGATCT GAATCTCTTT AACCTGTTCT GCCTCTACCG GGGTCCCCGG
 68581 GTTAAACCC GCGGGGCCGC CACCTGTAAC GTCCCGTGCG CAGAATGCGC CAGGGGCATC
 68641 GTGAGAATTG TCACCGAGAG GGCCTTTTGT TGTACCGAAA AGATGTTTCAT AGCGTCTGCC
 68701 TGCAGCGGGG TCGTTATACC GCCCCAGTTG GCCAGAGTTC TGCACGACGT CTACGCGGAA
 68761 ATGAAGGCCA AGTGTTTGGG GGCCTGGCGT CGTCTCATAT GTTGCAGGCG GCCTATCATG
 68821 GCTATTGCCG ACTCGGTCCT CGTCACTTAT AATACCCTGG ATGCCGAGGG AAAACTGGAA
 68881 CTTAGACTCA AAGCACTGTG CAAACTTGTT TTTCAACCCA TCTTCTTCA AAGAATCTTA
 68941 GCCCCATATG AGCTACTGGC CAACGGGAAG ATGGTTCTCTG ACAATTATTT TACCATCACC
 69001 GGTACGGCCG AGAAGAGGCG CCCTGTCTGT ACTGGAAGTA CTAGCGGGAT GACGTGTCCG
 69061 GGAAGCAGCC TTGTCCCCGA TTCCTTAATC CTGCCAGTAT GCGAACCAGG GCTTCTCCCG
 69121 GCACCCCTGG TTGACCTCAG TAATGTCTTA GAAATCCAG AAAATCATCT CAGCGCCCCA
 69181 CCCCTGAGTC AATTGTGCAT CACAAACAG CACCCAGTC TGCCTCAGTC AGTCAGCATT
 69241 ATTACGCCAA CCCAGGGCGT TGTTCGCCG CAATGTTTTA TGGACACGTG GAAAGCGGTG
 69301 TCACAGAGCA TTCACCACCA GGCACAGACG CCTATTTTGG CCGCCGCACT AACCGGTTCC
 69361 ACATCTGCGG CCCCTGGCCC GCATATCGCA TGTTCCCCAG TTGCCGGCAC GTCTCGGCAG
 69421 GTGGAAGGGT CCGCGGGCGT CGATTGCGGG AAACCAGCAT GCGTTCGCGA GCCCGCGTTA
 69481 CCGCCCAATG TCCCCGCCAA GAGGATGGAA ACGGTAGCAC AGTTGGGAAA CGCTCCCCTA
 69541 AAAACGTCC ACATCGGAGG CCGCGTATAC GCTCCACTGG TTAATATACC AATAATAGAC
 69601 TTAACGTCCC CGTCAGGGTC CCGCCAGAGT CCGGCCGATA TCGCCAACAC TCCAGAGTCC
 69661 CGCATGGCGG CCGGCTCTCC GCCCTTCGCC CAACGGTCCC CGCTAAGAGA
 69721 AAGCAGCCAC GCGAGGACGT GGCAGACAAA AGACTGAAGG GCGACGTTCC GGGCGCCGCA
 69781 ACAGTAAACC ACCCTTTCCC GGGACCGTCC GGGATGCGCG TTCGCGAGCA GGGCTTATTC
 69841 GATTTAATCG AAAGCTCCAC GGATGTAACC GCGAACGCAT CTGGACCCAA AAACGACGAC
 69901 GACATGCTAG CGGCTATCCT ACAGGACCTG TATGGACTAC AGTCCCCCCC GGCCATCGAT
 69961 TCCCCCTCCA GCAACTCGGA CAATGAGGAG ATATTTCCAG AGGTTAGTCC GCCATCTAGC
 70021 GGCCACGGAT CGCCTTGAAA GATGACCCCA AGACGCAAGA TCACACCACC GAGACAGTCC
 70081 CACGCAACCC GGCGGATGTC TAACCGTAAA AATATCACCG GTTGGAAAGT CCCTTGGTGC
 70141 GACAAAAATG AGCTTCAAAC TTACCCATTT TCTGTGCTAT TTCGGGACAC TAAAAAATTG
 70201 TCGCCAGTGG CGACAATTTT TAAGTCTGTG TAAATGTCAC TCTTTCTCAA GTTTCTGTCC
 70261 TAGAATTTTC ACATCCAGTT TCATATGATA TAAAGACACC TGTTTTGTTT TCGTGAATCT
 70321 GGCGTGTTTT TATCTTGAGA GGCCCCCTAA AAACATGCCT CGTGTGAAAA CACAACCCAA
 70381 GAGACCCCAA GTGCTTGAAT TTATGCCATT AGATCTCCAC GGTGGAACAC ACACGGAGAT

WO 00/28040

PCT/US99/26260

70441 GGATTCTCAA AACCTGTGTC CTGACGGCCA GGATCTGCTC GGGTCTTATA TCTATACGGA
 70501 GAATAACGGC CCGTTTTCCC AAATAATGCA CAATGGACAG AGCAATACCG GGACAGGTGA
 70561 AAGCTTCGGC AGCTACGCTG CCGGCGACGG TTTTCTGGGC GGTTCTGTGT CAGGGATGTA
 70621 TGGAAACAAC ACCGGAGAGG GCGCGTGTTC TAAAGACCG TCCGCGTGCC GTAAACGCTC
 70681 GGCTGCACTA ATTCACGCGG CGTCCGAGGC GTCTGTGGCC GAGCAAGGCA CCTCACAGGG
 70741 GGCACATGCC GTATCTGACC GGATAGGCAG AGACGGTGGC GCTGACAATA GACTACTCAA
 70801 GGTGAGTGCG CGGCTGTGCG ACAAACAAA GAGCGCCCTT CGCAGCCATC CTTGCTTGCG
 70861 TTGCTATTCT TTGATGTTTA ACACGTAATG TCTGTTTATA TTAACCCTGC CATAGCCCAG
 70921 ACCGAACACT GTGCGATGCG ATTATAAAAC GCAACACTCG GACACGTCAG ATGGACGCGC
 70981 AAAACGCGCG CGGCAGTGCA AGACCTCAGG AAAAAATAAA GCCCAACAGC TGCAACAGGT
 71041 ACAATAAGCA AATTTAGTAA TTTGTATTTT TTAAGTTTCC GAGGTTTTCC CGCTGGCCTG
 71101 CGGCACCGTG TCCGTGCTTT AGTTGGAATA CCTCTCCTAA CAAGCACGTA TTCCAACAGG
 71161 AGCTGGAAG TAAAACAACG CAACTGACCG TCCTCACC GC TCAACACGAA GCCCTTCAAA
 71221 AGCACGCATC ATTTTACAG AAGATGATGA TATTGATGTG CAAAAACGGG AACAGTAAAA
 71281 AAAGCACGTC ATGATTTAAA GCCACCTCGG GTTACTAGTT TAAACTGACC TAATTGATTC
 71341 TATTCACCTT TCAATAAAAT AAAATTTTAA TACGTTTGCG GTTTGTCCAT TTCCTGTCTT
 71401 AAAACTATTA AACAATTCAT TTGGGAATAA GGATTTATGG GATTAAGGGA TTAAATTTTT
 71461 TTGGATCATG GGATTTGGGA ACATACGTCT GGGATGGAGG TTATGCTTCA TGGTCTGGGT
 71521 GCGGTGGATT GCACGGGGAC GGTGCGTGTG CCCAACCTGG CACCTGACAG ATGGGAAATA
 71581 CGAGGCGGTA TACAGGCACT ACCTCGAAGA GTGCCGCAAA CATGAAGGCT CGGGGAGCCT
 71641 GGACGGTTCC GGACAGACAA AGGGGTCTGG AACCAAAGCA ACCACCGAAG CTAATATATC
 71701 GATAAGACCT AACGTTGTCA CATCAGGTCA AAATAAAGAG CCGCCTGGGA CAGCACCGAG
 71761 GGCCGAATCA TCACACGACC TGCCACGCAT CAAGCAGGTT AACGCTCTCC GATTATCAAC
 71821 CCCGGAATTG GCGCAACCAC TCCCGGTAGT AAAATCGACT CCGCGCGAGT CACAGTCAGG
 71881 TGGGACACCC TGGAACGCGC GCCCCCACGC GTTCATTATG CACACAAACG ACATGCTCAA
 71941 CCCATCTGTG GTCCTGTCTT TCAGAGCCAT CCGTGCGCGG TCCACACGCG ATACCGAGCA
 72001 GTCCGTTCCG GATCGGAACA CGGTCACGAC CAGCTATCGT ACCCTTGCCG GCCCTTCCCT
 72061 CTTTCAAGCC AGACCCCTCG CTCACGGTGC GCGTCTACCC CCTTCGCCC CCAACGATGGC
 72121 AAGATACGCC GAGTCGCGAA CAATATGCGA CCAAAATTGA CCGCAAAGAA TACCACGCCG
 72181 TCCGTTCGAC GCAGTGCCCG TATGACGCT GCACGGGACC TCAAGCGTCC GTGTGAGACC
 72241 CATTCTCCC TTCGCCGACG CCGTGGCACC TGGTTCACCC CTGTGGGCT ATGGCCGGAA
 72301 TATTGGGCCT CACGATCGCC TTGTACACGA TATATCAAAT ATATGCACAT AGAAACTACA
 72361 CGACGCTTCA CTGCGAATAA AGGTTTTATTT ATTTTGACCA CTAGTCCGCG TCGTTATTTT
 72421 TGGTCCTGGA CTGGGCGCGC CTCCTCCTGA GCGCCCCGTC CGCGCTGGCA GCGATTCCGC
 72481 CTCTGGTGGT CTCGTCCATT GACACGTCCA CGCGGATACT AATTCCGGCG AGGGCGTCTT
 72541 CCATCTGCCC GCGCGTCACG GCCTTGCCG TGGCCGCCCT CACCTTAGCT TCAATCTTAC
 72601 GGGTTGCCAC GTTACATAAG GCCGAAACGG CAGCTGCGAT TTTGGCCTCC TTTTCGGTGT
 72661 TAGAGATGAC GGGGTCGGAG CCGGACCTGG TGGGATCCCC AGAATTTATC AGCTTTTTGA
 72721 GCTGCTTGTT TTCAACGGAC AATTTTTGCA CCTGAGCGGC TAACCTCTCC ATTGTGAGCT
 72781 CTTTTTTGGG GGCGCGCGTC TTGGGACGCG TGGAAGACAT GGCAGCTACT ACGCATTACA
 72841 GAGTACAGCG GGACGTTTAA ATACTTTCAG GCGGCCCTG AGGTCACTCG TGCGCCACGG
 72901 TTTCAACAAA TTTAAAAAAG CACATATATG TTAGGTACAG AAATGTTGCA ACCCGGACCA
 72961 GAACAGAGTT GATCACCGCC CATATACTCG AAAAACTAGA CAGCACGGGC TGGTACGTGT
 73021 CCGCCGAGCA ATCATAGTCA TAAAAAGAGG GCGTTACGGA GGGAGCCGCG GAGGGGTTTG
 73081 TAGTCACAGG AGGCGTGCCC GTTCCTGTAG TCGAGGAGGT GGTGACGGTG GCGCACACCG
 73141 GCAGACACAG ATATAAGCAC GCCAACAGGG CTAACGCGAG CACAATTGAC CCTGTCAATT
 73201 TCAAGCCGGC GTTCGGCAGG CAACCCTCCA CTTTGGCAG CGCGCTCTCC TTATATACTA
 73261 CCAGTTAAAC ATTATGGCAG AAGTGACCGC CCATACGGTT CCGTACGCCT TTGACTCCTG
 73321 TAAGTTTGAA ATAATACCAA AAAACAACCTC ATCTCGTATA GCGTTACGCA ACAAATTTCC
 73381 CGTCGTGGTC AAACCGGGAG AACCTCTAGT CGTGCCCTG GGAATAAAAA TTATCCGCGC
 73441 GCCCCAGTGC GCATTCTTTC TCAGCGGAGC GCCGACGGAT GAGGTGTATT ACCACACCGG
 73501 ACTTATAGAT CAAGGGTATC GTGGAGAAAT AAAACTCATC GTTCTCAATA AGACTAAACA
 73561 GGTCGTCACA CTTTACCGGG GAGAAGTCAA CGTCTCACTC ATCGCGTTTA TGTACGCTTC
 73621 GCCCCGGGCC CTAAAATGCC CGATACTGAA CCTACCACAT TACTCTCTGG ACGCTGGATT
 73681 TGATGTTACG TCGCCACATG CCATGACCAT ACCCCCAACC GACAGAACCC CGTTTACGTT
 73741 GAGTTTGTAT TATAAGAGTC CACAGCTCAG CACCCCCAC GTCCCACTAA TCGTGGGGCG
 73801 CTCTGGACTG GCGACAAAGG GGCTTACCGT CGACGCGACC AAATGGACCC AGTCGTTGGT


```

73861 ACATCTGAGG TTTTATAACT TTACCAAAGA GCCAATAGAT ATACCAGCAA ACAGCCGCAT
73921 ATGTCAGGTA GTGTTTATCC ACGAAGACCA CGTCCCAAGC GGGTGGAACA TTCTTAGATC
73981 CCGCGTACAA CTCGGCAGCA CCCTCCAGAT ATCGTGGGCC AAAATCAGGT TTACCGACGT
74041 GGCCACGCTC CCAAAACCC ACCCGCTCAA CTCCCGCCAC ACTCAAAGCC AAACCGAACC
74101 GGAGACCGCC CGCGGCGCAA AGGGGTGGG GTCGTCAGGG TTATAATTTT AAAACATGGC
74161 ATTATTTTAA AGTTGTTTAT TTTTAATAAA ACAATCCAA TTTACGTAA CCATCAGCTT
74221 GCGCATCCTG TATTATTTTG TCTGGCACGA TATTATCCGC CACCGCCAAC TGGGGCGTCG
74281 GTTGTCGAAT CACCGGATGG GAGGGGTGG AGGACGCTTC GGTGTCTACC AGCACATTAT
74341 TAATTTCCGC AGCCCACGTG ACAGAATCAT CGGACGCGAT GTTATTCAA AAGCGCGTGA AAGGCGCTCT
74401 TTTCCAGGAG TGACACGGTC TCGTCGGCCC GTTTATTCAA AAGCGCGTGA AAGGCGCTCT
74461 CGTCCACCGT AATATCCCCT TGAATCCTAA CCGTCTCCTG GCACCCCGCG GGTACCCTAG
74521 TAGACTTTAG CTTAGATATT TACTCGGTTA TTTTATTGGA TTGAACGGCC AACAGATACG
74581 CCGCGTCAA ACGACGAAGA TACTCGGTTA TTTTATTGGA TTGAACGGCC AACAGATACG
74641 TCTGCCGAAG GCGGCGGGTG CACATCTCTG CCTGCTTCAC ATCTCCATA TCCACTCCCG
74701 GGGGCAGACC CATGGCTATT TCGGTCCGCC AGTGAGTAGG ACACTCGTTA AGAGGATCTG
74761 GCAGGGGACG ATATTGACAT CCCACGCGTC CAAACGGACT AAACCCGCAA CACGTCCAAA
74821 ACGAACCAGG CGCGGCCATT GCCAAACAAA ATGGTAGATG AAATTAGGGC AATTTTCTCT
74881 ACTAGTGGAG ATATGGCCGA AGTAATTACG GATATACTGA CTGAAACGCA ACGAACGGCG
74941 TCCTTCTTCT GCGTGCTCCA CGATCGGGGC GACGCGCCTA TAAATACTCC ACATGCCGTA
75001 ATTAACTCT GCCTGCCCGC CAAGCGCCCA GCGCGCGGC CAAGGTGTTT ACCGTTGATG
75061 GTGCTGAACC TACCGGCGTG GCAGGTTAAT CTATTCTTAA CAGGTGACGC ACCATTGACC
75121 TCGGATAACA TTAAAGACCG CATTGACCTG GCTCAGACCG AGGAAATACT CGAACCCATA
75181 TTAAGCGTAC TGGCATGCAA ACGGTCCGCG CAGCAGACCA AACATGACTC GTTTAAATCT
75241 AAGGTGGCCT GGTTTCAGGGC AAAGTTCGTC TCGGCCCTAA GAAAAGTGTA CAAAATGACC
75301 CCATCCCCCT ATTGGATGAT AACGCTGCTG GGCTCGTTTC AGGCATCGTT TGTACTGGCC
75361 GGCACGTTTT ATTTTTTCCA GTCTCATATA TGCACGGCGG AGACGCTGGT GCATCTAACC
75421 AGGTATTCA GCTCCAGTCA GGGCCAGAGC TTGGTCACCG TAAACACCTA TGACGAATTA
75481 GGGCGCGTAT TCGGGCGGTC AGATTTCTTT GGAATTGTTC CAAATTTTGG GCGTATCTA
75541 AAATACAAAA TGCAACAGGA CGACGTGGAG TCCAGGGCCA TCGATCAAAC AATCAACTCC
75601 ATACGTGGGG GGTTGATGCT GTACCTCAG GACCTCGTAC ACTTCATCTA CCTGTCAATT
75661 TACGAGTGCA TGAACGCACA GACGTTCTCT TCGTACTCTC GTACCACGTC CAGTTTACCG
75721 ACCCCGCAA CGGTAAACCC TCCGCACTG TGTCGGCGCT TAGAAGCGGA TTTTAAGGAG
75781 CACGTGATGG CATATTACAA TAAAGCAAGC TACCTGAGTA CTTACATAAC CATTTTAACC
75841 GTACCCGCTC CTCTCCCGGA CGGATACGAA AACTTTCAGG AACTAGCATG TCAATACTGG
75901 TGTGGACAAT CGAGAGACGT GGCAGAAATC ATGACTAGAA TTAATGACCA GTATCCACAG
75961 CTGAATCTAA CAAAAGATTT ATCCGGTCTC CTTGACCTAG CGGCCCTAGA TCAGTATTCC
76021 GGAGGCCCCA AGGAAAACCT TTTTACGGTG GCTTCGAGAA TTCCCACATA CAGGTGCGAG
76081 TTTTGAATA AACAGTATTT TGTCTAATG CACGCAGACT GTATAGACGC GTACTGGA
76141 CAAAACATTA TCGTGCCCGA AGACGCCCAA TTGCAAGGCC TGACGGATCA AGATCTCACC
76201 TCCAGGATAT TTTACTGCGA CCTCGGCCCTA TCTCTACCTA CATTAAACA ACAAAATCTA
76261 GTTTCACGCC ACGAGTATTT CAACCCACGA CTCCCAGTTT ATAGATGGGT GTTGATTTT
76321 GATCTAAAGG TAACCGAAGG TAGACGGACT CTAAACGATA TCTACAACAT ATGCGTAACG
76381 CTGCGGCAGG TCATATTAGA AACGTTGCAG TTAATAGGTC CACTAAAACC GAACCAACCC
76441 GTGTATTTTT TTAAGTCGGC CTGTCCAGCC GTAACCTGGC CGGATGATAT CTCAGACACC
76501 GCGTCTGTG ACTGTGACGC AAAAATAGGG ATGAGAATTG TAACCCCGTT TCCGAGCGGA
76561 TACTGTTTGG TGGGGTCCGC TCCACTCGTG TCCCTGACCG ACATTTTAAA CCGCGTGGTT
76621 AAACCTGGACA CGCGGCTAGC CTCAGAGTAT CCTGGGATCT TAGAAGATAA AGGACCATTT
76681 GACTCTGGCA TTTACGCCAA GGGGCGATGC GTGCGCGTAC CTCACTGCTA TAAGGTTGGC
76741 CCGGGGGGCG AGCTGTCACG GCTCCTAAAA ATTATTATCT GTCACCCCGA AGAGTCAGAT
76801 AAATCGGCGT ATTTGAAAAA CGCGTTTAA GTTTCTAATC TGCTACATCA CGCCCTGGA
76861 GACTCTGTCA CAAAAACGG CCACCTGGTG TACGCGATCA CTGACGAAAA CGAGGGCTTT
76921 CTAGAAAGCA AAACCAAGAA TAATCTTCCC AAAACAATCA CGGACCTGGC CGAAAAAATT
76981 GAGCGAACCA CAGAAAAACC ACTAATTGAT TGGGCAGCGA CCGCAGTGTG GCCAAAACTA
77041 CACGATACCA TACAGCGTTT CTTTCCGGAT GACCGCATCG GCCAATTGCG ATCTGTGAGC
77101 TTCATGCACT CCGGAGACAA CATTATACAA GTTAAACCAC AAAAAGGAAA CAACTTTTTTC
77161 TGTATTAATC ATAAGCACCG AAACCACACT CAGACAGTCC GTGTATTTTT AACCTTACAT
77221 TCCACAAAAG AAAGCGAGGT CACGGTGACC TTTATGAGTC AGTGCTTTGC TGCAAAATGT

```

77281	AATCATAATA	GCCCAACTGC	ACATTTTTTCA	TTTATGGTAC	CCATAACCGG	CACGTAAGAG
77341	ACACGAATAA	AATCATCCGT	GATGGGCCAG	CTCTCCGGCT	ACTTTGTTAA	TTTAAACACC
77401	GCGTAACCCC	AAAAACAACA	TCTGGACGAG	TTTTGTTTCG	GAACGTGAAC	ATGGCACAGG
77461	CAATGGTGAG	CCTGGAATAC	ATGAAGGATA	TTTTGGACGG	TAAGAAGACC	CTTGTGGCT
77521	CTTACGACTC	CCATTTAAAA	CCGCAACTTA	TCAAACGGCT	CTTTTTATAC	GATTTACATG
77581	CGGTATGTGT	TTCACGCACT	AATTTGTTTT	ATAGGGGGCA	TATCATCGTC	GGACTTCGAC
77641	GACTCGTCCT	CGGACGAAAT	GGACGACCTG	TCCCCAACGC	CGGAGCCAGA	ACCGTCCACA
77701	ACGCCGAACA	GCTTTCGGGA	GGGGCCCCAA	TCACAAGTGG	TGGCGTTACC	TAAAATCCGT
77761	AAAAGATCTC	GATCTGAGAC	GCCGGTAAAA	ATTGAGCACA	GATCTCCACT	TAACCGCTCG
77821	CGATCTCGAT	CCAGAACGCG	GTCCGGGTCC	GGTCAACGAT	CAAACAGTC	AGGCAGATAC
77881	GTCAAGAGAT	TCAAACCAAC	GGTTGATGCA	CCCCGTCATC	GAGAACCGTG	GCACAGGGGC
77941	GGTAAGGGAA	AGGCCCCGTT	TATCCGCAGA	GACGCAATGG	CTGGCCGCGG	TCGACGCACA
78001	TACGGCCACG	ACTATCGCGG	AAAAGCCGCT	TTAACGCGGA	GCATTAAAGA	GTCTATTAAA
78061	AAGATGCACC	TTCCATCCAC	CATGCTCTCT	CGTGCGCACG	ATAAAAAGGT	ATTTCGAGGGA
78121	CTGTTGCCAC	GACACCTGGG	ACAGTGCTTT	CAGGTGTGCC	TGCCGGCGCC	GCCACCGCTG
78181	CAACCCGAGG	TGTTACGGGA	TCGACAGCTT	ACCGCTATAG	TCAAGTCTGG	CGGGCGCAGA
78241	GACGCGCTGG	TGGCCAAAAA	AGTTAGCCTG	GCTAAACTAA	CAAGCCTATA	CAAACCCCTG
78301	CTCACGTTTG	TGACGGGGAG	AAACAACCAG	GCCCACTGGT	TGGCGACGCG	CAAAAACACG
78361	CTAGCGTCTG	CGGGACTCGA	GCCTCTCGCG	GCCTTTATCG	AGGAAGGTCT	GGCGTGGGCC
78421	CAGGTGTGCG	TATCTCAAAA	CAGATCGTTG	AACGACAGCA	ACCTAGATAT	CATTCTAGAC
78481	AGTAGTCAGA	GCGTGTGCAC	CTGGTTCATC	TCCAAAATCA	GGCATTTGCA	CATACAGTGC
78541	TTCTTGAGAG	ATCAGGGTGA	GGTTAGCCTG	GTGAAGCAGC	TAACCTACCT	CGTGTGTATA
78601	AATAACCGCC	TGGCGGAGGC	GGCGAACCTG	GCGGGAGAGG	TGAAACTGAA	TTTTAAACTC
78661	GGAATGCTGA	TTGGGTTTCG	CCTAACCTTG	CCGGCGCTCC	TTGCAGAGCA	TAAGTTGTCT
78721	GGCGAGAGCC	TGTACCTGTT	TAGGTCTTTC	CTGGAGAAAT	ATAGACCGGG	AGATGTCATG
78781	GGACTCTTAA	ATTCAATAGT	GGTGGAGCAC	TACACCAAAT	GTCGTAGCGC	GGAGTGTGTC
78841	ATTACAACCC	ACGCCATGGT	AGGATCTGGC	GAAAACAACA	AGGGACTTTT	TTTCTTTCCA
78901	GTGTAATATA	TAACCCATGT	GTGTAAGTAG	TTACGGTATA	TTATTACCGG	GCGTTTAAAT
78961	GCAATAACCC	ACATAACAAA	ATAAAAATGT	GTAAAACCAA	ACACGCGTCA	AGCTTTTTCT
79021	GCAAGGGTTC	TGTGCTCGGA	ACAAATAGGC	AGAGTTCGCC	ACCTAGCGGC	ACGTTCTCTA
79081	TAGCCTTGGT	ATACAGCGGA	TGTTATTTAC	GGAAGTGCCA	CATGAAACCG	TGGCCGGGTG
79141	CGTAACAGTA	AACCGGGTCC	AATCGCGCAG	TTTACACAAC	ACATAAAATA	GGCGACCGTT
79201	TATAGCGGTT	TATTTGAACA	TACAACACAC	ATTTTCAGGAG	TTTCGGTCTT	TATAAAAATC
79261	TTCATTCAAT	CAAAGTGCCG	ATATATTTCA	CGCTGGTGGA	CAACAATACA	TATCGGCGCC
79321	TGTGATTGAT	CCTCCTCCTC	GTATAGGGAC	CAGGCAGACA	CCCAAATCTG	TGCAAACGGA
79381	TCGGGTGGCC	CGGGATCAGA	GGGTGCTGGT	GACTGGGCTA	ACTTTAACAT	GTATTCATCG
79441	GTATCAAAAA	CGCGATGTCC	CACCCAGAT	GGCACGCGTC	TTGGTTCAGA	GGTGTGTTGAG
79501	GTATTGCCAC	GGAACCATAA	ATTAAGAAAT	CCATAGCCAT	TCATCATAAT	CCCATACTGA
79561	CAACTGCACA	AAACAATGCC	GTCTTCCAGG	GCGTGTAACG	CGTTCACAAG	TCTGCTCAAC
79621	ATAAAATCGT	CATCCATATA	AGGCGCCGGG	GGCAACCACA	ACTGAAGCGG	CCCGGGAGCC
79681	ATGCAGACGT	GGTGTTCATT	TTTATCCGTT	GGTCTCGTGG	ATAAACGAAC	GCCCATCCCA
79741	GAATGGGTAA	AAGTCTGTGC	TTGAAGGACC	CCATAATAAT	AAACCTGAAT	ATGCATAAAT
79801	CCCCACGGGT	CGTCAACAGA	TGGCGCCAAA	CACGCAGAAA	GACCGCTCGA	TGCAGATAGC
79861	GGCAGGGCGT	GTTCCCCGGG	CAACGCAACC	GCGCCCCCTT	GACTATTGTC	CTGCCTACCG
79921	TCTTCACCGG	AGGCGGTTGC	GGTTGCAGAC	GCCTCGGTGG	CCGGGGCGGT	CATGGTGAAG
79981	GTACCGGCGG	GACGGGTACG	AAGTAGCCCG	AGCAGCTGCT	TTACCGTGTA	TTCAGATACC
80041	CTGCCCGCCT	CGTCGGCGCC	CTTGCGCTTA	AACATCCGAA	ACCTCAAGCC	CCGAGTTCT
80101	GCCGCTACCC	CAGAGGCCCC	AGGGCACAAAC	CTGCATAACA	TCTCTTCATC	GGAGCGCAAC
80161	CTGAAGACCA	CGTTTGCAAA	TGAAAAACTC	CGTCTCAAAA	CGTCTTTTTC	TTCTATGAAA
80221	TAGGCACTCT	TTCTTATCGC	ACCCAATAGG	CGCGCCTTGG	CCTGGCCAG	CCTAGACCTC
80281	CCGGACGGAA	GGGGGATGTT	TCTCTGGTTG	CAGTAGTCCT	CGTACATCTT	CCCATCCCGA
80341	AGGTAATCAA	ATCCCACAGA	CCACGGGGTC	GTAGTCGCCA	GCACGACCCT	GTTTTTTTCG
80401	TCGTCTGCCC	AAAACAGTCC	CGAATACGTT	GTAAGATTGG	CGTGAGTAAC	GATCCATTCT
80461	CGAAGTCCCA	TGGCGGACGG	ACCACGCTC	TGAGGTGGGC	GCCAGGTAGC	CATGGCTGTA
80521	TATGCCAGGT	TGATACTCAC	CGCTTTCAGT	TCGTGTAAAA	ATAACCAAAC	TCCGCCCATG
80581	CGGCTACCGC	CGTGGGCGCA	GATGTGTGCA	GCCGTCACAA	AAGAATCCCA	CCTGCGGCAA
80641	CTAATTCCCT	CAGCGCCACG	TCAGCTGGCT	ACCGGTTTCAT	TTCACTCACG	AGCACGCCAC

80701	CCCATCATCT	TCACCGCTCG	TTCCCGCGTC	CGGATCGTCC	ATTGAATCTG	GTCCGGAGTC
80761	GCCCAGCTCT	ACTGCCGGGT	CATGCGATTG	GCTCGTCCCC	TCTCCTGGAT	CTTCCATCTG
80821	GAATGAACAG	TCGGTGCGAC	CCTCTGATGT	TACAGTCGTC	CCGGGGTAAA	AACAACCCCTC
80881	TGTACCGCAT	ACAGACGAGG	TTTCGCACAC	GTAACGCAGT	CTCATGGCGA	TGGGCGCATC
80941	GACGGGATTC	GGCGACTGGA	CCGACAGACA	CAGGGCGATC	TGTGCATAAT	CTCTAGGTGG
81001	TTCGTCTCCA	GGGTTCGGGG	ACCTTGCAAG	AGCTCTAAGA	TAATCCACCA	TATCAAAAAC
81061	CTGAACGGGT	TGCCTGGATG	GCAGGTCTCT	ATACTCCTCC	TCATTGTTAG	TAAGCACCTT
81121	CATATCCCCG	TTCTCCAGGT	TCTTCACGCA	AATGCCAGTA	TCCGTAAGGG	TAATCAACAC
81181	ACCCTTCTCG	CACCTTTTGT	GCATAACCCT	TAGATCTTCT	CTGGCAAAC	GACAGTCAAC
81241	GACCCCCGGT	GACGGTAAAA	ACAAAGTCCT	CTCATCTTGG	AAACAACACG	CGTGGCCAGC
81301	GAGGACGGGA	CATGGTTCGAC	TGCAGACCCG	TATTCCAGCA	TGAACACGTT	CGAGGCCAAC
81361	GGTCTCTCCA	AAATATAGAA	ACGTTAATTG	GATGGCCCCCT	GGCAGCCGAT	GCTCGCGCAC
81421	ACGCTTGTTT	TTGTCCATCC	GACTCCGAGC	CAATACCGTT	GCGGTAAAAA	CCCGTCTTCT
81481	TTCACGTCCA	GACCCACCCC	CCTGGTCGTA	TTGGAACCTA	CTGATTAAAC	CAAGGCACTG
81541	AGTTTCGGTG	GAAGACATCA	GATTACACAT	TGCACAACCT	ACCACCGGTT	CCGGCAACAG
81601	GCGAAACAGT	CTATATCGAG	CACCCGGTCG	CCCATAGGCC	TTATTAATAA	ATTTAAGCTC
81661	TCGTATACTT	TTGTGGTGTC	TCATGTCGTA	CAAGAATCTC	ATTTTCCTGA	ATCTGCCATA
81721	GTGGGACGGT	TTTTCGCCCT	GACATATGCC	TCGCATGTTG	CAGTAGTCAT	CAAAAACTT
81781	CTCGCTATT	CATACGGACC	GATCTGCAGT	TACTTTGTTT	CACGGGACCC	GGACAACGGT
81841	CTTGTCTCTA	TTCTCCCAAA	CCAATCCGCG	GTACTCGCCC	GATTTCGACG	CGGCAACGAG
81901	CCAGGCCCTG	ATATCGACTC	CACGGCCCCG	CATTCCGCGT	ATTGGGAGCT	TGACGGATCA
81961	GCTCTCAAGA	CAAATGAAAC	CCTTGCGTTC	ACGGCACCAG	TTCATAAATG	TATCTAAATG
82021	ACGGAGTCAT	GTGCCCTAAA	CATATGGCTA	AGACTACTCA	AACCTGTGCT	AGGGGAAGAG
82081	TGACAAACAC	CTGGCACTCA	ATAAAATTTT	GAGGTCGGGC	ATTGACCCGT	GCCTTCCTCT
82141	GGTTAGTATT	AACCCCATCG	CCACCATATT	CAAGGAACAA	AACACTCCAG	ATACAAAACA
82201	CTTTATTACA	GATAGAAGGC	GCTCACCGGC	CTCACAAAAC	CGGTCGCGCG	CACAGGTAAC
82261	ATTAACACTT	AGCGGCGGAC	AACGCCCGCC	ACAGACACTC	GTGCCACAGC	TGAATAATTA
82321	GCGGTACAGT	GCTTTGCACT	CCGCCCTCGG	GTGTAGGTAC	GCCCCCAAAA	TATAGGTAAA
82381	CACAAGCTTG	TGGAAGCGCC	GCTCCGTCCG	GAGATGTTCT	GGCCATGGCT	GTCATATAGT
82441	CAACCAAGTT	AAATGCACGA	CACGCGTTGG	CGCACGACAG	GACCGCAACC	GCCCCCGTAG
82501	ATTCGACGTT	CCCTTGAACG	AACGCCAGGG	AATGCCCCAA	CCATCTAATG	TAAATGCCGG
82561	AGGGGTCGGC	CCAAAACGCC	AACCCGCGCA	AAAGATCTTT	ATCCAGGAAG	CGCAACGCCT
82621	CGGCCTGAAA	CTCTGCTAAG	TGGCCTGGAA	TCTCCGGAAC	CAGTGCCTGC	TCCGCGATCG
82681	GTGCGGCGCA	TATGTGCCCT	TGAGGCGCAG	GTTCGGACAA	TGGGAGCACA	CGGATGCCGT
82741	TGGACGATTC	AGTCACCACT	TCACCAACTC	TGTCCCCATA	ATAGTAAAC	ATTATACGTA
82801	GCATCCAACA	CTGTTACCCC	CCGGCTCCCA	CCGACCAGT	GTACCGAACA	CCGGCGCCAA
82861	CCGGACCAAA	CTTATTCACG	GCCTCCTCGC	GCAACCCCCG	TAACATAGCA	GTAGTGCCGG
82921	AGGCCTGATC	GCAACGAGCA	CACGACCTCA	CGGTAATTGG	TAAAAGGCGA	ATGATTCCGG
82981	ATCTGTCCGG	ATATGGAGTC	GAAAGGTTGT	CCTTAGTTGA	CACGTCCGAC	ACGGTTTGAC
83041	TATGCCGTAT	GGCGCTGGAT	AGCCAGTTTT	TGCATTCTCT	AGCGGTTAAT	TCCCTGCCAG
83101	CCGCGTGCAA	GATGCCCTTG	GATCGACAGT	AGTCAATAAA	AATGTTTTTT	TCCGCTCCT
83161	CGACTCCTCT	GCTCCCTCTG	TCGTGATTCC	ACGGTATGCG	GATTAAAGTT	CTTTCCTCGT
83221	CAACCCACCG	CATTCCGGGA	TGACGACCTG	TCTCGCAGCA	TTCCACCAGC	CATCCTCGAA
83281	GGCTGGATGG	TTTGCTCACT	CGGACCGGCC	GCTCCATATC	CTCGCCGCGT	GCACGGCAAT
83341	GCCAAACCTT	GTCCAAGTTA	CCTCCTGACA	AGCACCTGCG	ACCCTCACAG	ACCTACGCGT
83401	GGCAAACGGG	AACTTGTGGT	CTAGTCTGCT	GGGACAGTAC	CTTAGCGTTA	TTTTTATCTG
83461	TCGTGCACTC	CTGCGGCGGA	AGTTTGTGGT	TTATGAGCAC	CACCGGGAAG	GATTTCATGTG
83521	TCCCTGCACC	AGCTCGTCCT	GACAGACCAC	CACAGAAATA	GGAACCTGTG	GGCTCTCTTG
83581	GGCACCAGGC	TGCTGTGAGA	GATACAGTGT	TGCCCCGTTG	CACGGCGCAT	GGCTCTCTGG
83641	TCCCGGAGAG	CGGGCAAGCT	TTCTCATGAA	ACCCATGAAG	TTAAAAATTT	TCTGTTTAGA
83701	GAGGAACATG	ACCTCTCGTT	GGATAATATC	ACCATTACAG	TCGTTACCCG	CCGCGTACAG
83761	CGTTTCCCTG	TTCTATTAT	CGACGTACAC	TCCGGTTTCG	TTGCCGTGTA	CTGATGCCC
83821	CTCGTTATAC	GCGACCAGCA	TCGTTTTTAT	TTGCGTTATC	TGTTCTGCGG	TCAGTTTTTC
83881	ACGATCTGGA	GATGGAAACC	AGACAGTGAA	CCCCGTGCCA	TAGAAACACA	GATGACCGGG
83941	ATGGGGAAAC	GGGCGCGGAT	GCAAACGAAC	ACCTCTCCGA	TCTTGGGACG	TGTGATCCAG
84001	TGCCAGAACG	CCAAAATAAA	ACACCTGAAT	TCTCAACCGC	CAAAACGGCA	CAATTTGATG
84061	AGGCAGCGGC	GCTTCTGGGA	CCCCGAGACG	ATGTGCTCGG	GCGTACGCTG	ATCTCGTCGG

84121	AGGGACCAAC	GTGGGCAAGG	GGGCGGGCAG	CGGCATTCCC	GGCTCTAACC	CGATGCCACA
84181	CACCTGCTCC	AAATAATTTA	TAATCCCTTC	AGAGTTCTCA	TCAAGGATAC	ACGCATAGCA
84241	TCCAGAATCC	ATCAAAGGTT	TTACCCGGAA	GGCGGTCCAG	CCGCCACCGT	GCGTCCGCAC
84301	GACCCCATGC	TCCACTTCTT	GAAATCCAGC	ATTCTCCCTC	AAACCCCTCA	AAAATCGTCT
84361	CTTACACTCT	AGCAGGTTTC	CATCTAGCCC	AACCTGCAGA	CCTCTCTCCA	CGCAGTAGGC
84421	GACAACGGCT	GGAGTTCCAG	CTGCCCCCTT	CTTCCAAGAC	AGCTTAAAGC	TTTTTTTCCC
84481	TCATCGCACC	AAGTTAGGTC	TGAATAGGTT	TTCTCGTTGA	GATGGTAAAG	GGTCCACGAT
84541	CGTAGATGGC	TGTAGTTAGA	ATCTCGATTG	GCCATGACAG	CGTACACCTA	TACAATAAGG
84601	CGCGATACGA	GTGTACTTTT	CCCCTGATGA	TATTTGCAGG	GCTCTATCTC	CTCAAAACGT
84661	GCACCTGGCT	AAGCAAGCAG	CTCTATTTCT	GCCACTTCCT	CATTTATAAA	ACCATATTGT
84721	TTCTGGTCTC	ACGTTTTGCA	GCTCACCTGC	AACGACACGG	TGAATGATCC	CGAGTTTCGC
84781	TCCTCCAGTG	CCTTGACAAA	CACTGGCCCA	GAGTTAAAAA	GTGAAGCAAA	AGGCATAGCT
84841	TTCGATTTC	GTCACCGGCA	GTGAGTGGTG	GACATTAGAA	AGTGTGTTGGC	CCACACATTC
84901	AGCTGTGCAC	TCAAGCCCGA	CCAATATGGC	ACGTGACCAT	TCCCCTATCA	CAACACTAGT
84961	ACAGAAAAAA	CGAAACCACA	CGCGAGGTGA	CATTTTCCAG	GTTAGAGAAA	TTTATTAAGC
85021	CGGCGAATCC	ATCTAACAAA	ACAGCAAATG	TTTATTCAAA	GTGCCTATAG	ATTTCTGTTT
85081	GATAAACAAAT	AATAGATAGT	GGAGCCCTCG	AAGAGTTTCG	CTCCTCGCCC	AGGGAACAAC
85141	CCGAAACCCA	GAGTTTAACA	AAGGCCGCGG	GGGGACCCGT	GTCGCGCGGG	GAGGGGGACC
85201	TGGCCATATC	AAGCAAATAA	CGATCAGTGT	CAAATGCCCA	CACGTGCATC	CCGGTGTAGG
85261	CACGATGTGG	CAAACTGTAC	GGTCCACGG	TATTTCCCTG	AAACCACACG	TTAGGACCCC
85321	CGGTAATCGT	GAACATAATT	CCCCTGCTGG	TGCTGCAGAA	AATTATTCCA	TCCACGAGCC
85381	ATTTCAAAGC	GTCTCGAGT	CTCTGCACCA	CAGACGACTC	AGTCGTCTGT	GGTATCGGAG
85441	GAAACCACGC	CTGAAGGGGT	CCATCCAAAA	CACACACGTG	GTGTCCCGCC	TTATTTGTTG
85501	GTTTGTGAAGA	TAGCCTGATT	CCCTGCCCGG	TGGCTGTCAA	CAGCTCAGCC	TGCAATTGCC
85561	CATAGTAATA	AATCTTTATA	TGCATGTGAC	CCCATGGATC	GCCGGCAGAT	GGCCAGCAC
85621	ACGCCATAAG	TCTGGCGCGC	AGAAGGCCCG	AAGAATACGC	TGCATCGTCG	TCCCTGCGCGT
85681	CGTGTCCATG	TTGATGACCT	TCCCGATACC	GTCTCTCTTG	ATCACTTACG	GACGGTCCCG
85741	AAAGGGCGTG	AAGCATTCCG	CGCCCGAGCA	TGGCAAACCG	CATATTGCGC	AACTCAAGGC
85801	GGAGCGCGCA	CACGCGCGGA	CACACCGGAC	AAGACATCTC	TTCGGATGAA	CGCAACCTAA
85861	AGACCAGCGC	CGTGAACGGA	AATTGATCGG	TAGGGAATTC	CTTATCTTCC	TCAAAGTACT
85921	TGCTCTTTCT	TACGGCTCCC	AGCAGGCGCC	CCCTGGCTTG	ACACAGCCTG	CTCCTTCCAG
85981	ACGGCAGTGG	GATGTGTCTT	AACTCACAGT	AGGCATCATA	GTGTTGACCG	TCGCGTTGAT
86041	AATCATAATT	GGGAAACGAC	GGTGGTGTAG	CTGCCAACAC	CAGCCTCGTC	TTTTGCTCGT
86101	CTGCCCAAAA	CAGGCCCGGG	TACAGACCAC	TACGGCTTTT	GAACGTCAGC	CATTCTTTGA
86161	GGGCCATGCC	ATAACGAGAT	GGGCCCTTTC	TGCATTCCCC	AGCGGCCATG	ATTCACTCGG
86221	CAACGTTTAA	AACCCATGTA	AAGTTTCAGT	TCAATTTAAA	ATGACACAAC	TCCGCCCATG
86281	CTGTGACAAA	CATAAAGAAA	GTGGCACACG	TGTGCGCTTT	GGCCGTCCTG	TCAGATGAAC
86341	CCCGCCGGTA	ACATTTACTT	CCTCCCATAC	GGTGCAGAGG	TAGATACAGA	TGTGCTTCCC
86401	GTTGTTCCCG	AAGCACCGAC	ACCCGCTCCA	GACGGTCCCT	CGTCCCCGCT	GTCATCTCCC
86461	GCGGCACCGT	TGCTGACATC	ATCTGACACA	TCATCATTGC	ACACGTAGCG	AAGTTTCAGG
86521	GCAATGGGAG	CATCCCATGT	ATTTTCGGAC	TGAGTAGACG	GGCACATGAA	AATCCACGCA
86581	CAGTCACGCG	GCGGGACATC	TCCTGGAGTT	GGCGATCTCG	CCAGCTCCCT	CAAATAATGC
86641	AAGAGATCGA	ACGCCTGGAG	CGGCTGCGAA	GGCCGCGAGT	CATAGTAATT	TTCAGAATAG
86701	TTGGTCAATG	CCGTGATGTT	GCGTCTTCC	AGGTTTTTCA	CACAGATTCC	AGACTCCGTC
86761	ATAACACAGA	TCAAACCTCT	CTCGCATGTT	TTCTGCAGGG	CCTGCAAATC	TGCCCTGGCA
86821	AACTCGCAGG	GAATCAACTG	GGACGACGGC	AAGAAACACG	TCAATGGATT	ATCGGCACAA
86881	CACAGGTGTC	CGGGACGTTT	GGGATCAGGA	AGGCCACATA	TACGCACACC	CGAGCCGGCT
86941	CGCAAAATTT	GAACCTCCGAC	GTTCTCTCCA	AAGTAAAAAA	AGGATACCTC	AACAGCCCCCT
87001	AGCACAGGTT	GCGCAGAAGA	GTCCTGGAGT	CGTTTGGATT	TCCGTTTATA	AACGGAGACT
87061	CTCAGTGGCG	CCTTAGCCCT	CGGCCGCCGT	GTCCTCTCGA	AAACATCCTC	TGCAACGCAA
87121	CTGCCCATGG	AACAGCTATG	CAACGATGTG	GTCGCGATGA	GGTTACACAG	ATCGCAGCCC
87181	ACCGTAACCT	CAGGAAGCAA	TTGAAAGAGT	CTGTATCTTT	CCCCAGAGAC	CCCCCCGGCC
87241	TTGCTCGGCG	GTGTCAGCTC	CCTCAAATAC	CTGTGAGATC	TCACTGCATA	TAACATCCTA
87301	ATTTTCTTAA	ATTTCTGGGC	ATGTGAACCG	GTTTGACACA	CGCCACGCGC	TGAGCAAAAA
87361	TCGTCAAATA	TCTTGTTATA	ATCTTCATCG	ACGCGACTGT	CGGTGCACCG	GTTCCACGGG
87421	ACACGTATAA	TGGTCTTGTC	CTCGTCATCC	CATTCCACTC	CGGGGTATCG	CTTAGACTCC
87481	ACGGCCTCGA	TGAACCAAGC	TTTTAAATCC	ATATCGCGTT	CCGCCATCTC	GCGTATTCAA

87541	TACCTCTGAC	CGAGCGGCTC	AGTTAAAATA	CCGAGCCCCC	AGAACCCAG	GCCTCCGTAA
87601	CAAAAAGGAT	CTAGATCTGA	AAGAAGCCTA	ACTATATACG	CCCACGGGAA	AACCTCTGTAA
87661	CAAATGAAAA	AAATGTTCTC	AGAAAACGAA	GAGAGGAAAA	CTGACGACAC	GCAATCTAGT
87721	CAAACCAGAA	CCTAAAGGCC	GTCAGTGACC	CATATCTTTC	CCCTTCCCGA	GCGAGTGCGG
87781	TTTCTCACAT	GCCGTGAGCA	AACGAAAACG	CTACACATAA	TAAGACACGT	GTGAGAGGAA
87841	AACTTTATTG	CAGGGACAGG	GCAAAAGCAA	GCTGTGCACG	GTAACAGTAT	GTGTCACTGG
87901	GCCGCATCCC	CGCACGCCCC	CCACAGACAC	TCGTGCCAAA	TTTGAATGGA	CAGGGGGATT
87961	GTGGGACACG	GCTCGCCTTC	CGGAGTGGGA	ACGCCTCCTA	GGTGGAGAGA	CGCATAGGCG
88021	GCTGGAAATC	GCGTTCCGTG	TGGCGGGGTG	GCTGACACCG	CACTCAGATA	TTGGGCGAGC
88081	GAAAAACACG	GCAGAACTCG	CGCGTTGTTA	ATTATATCCA	CCGGCTCCAG	CGAACCTCCG
88141	TTACCCAGCA	GGAAGGCTGG	AACGTGACCC	ATATACCGAA	TGTAAATCCC	AGACCCGTCT
88201	GCGTAAATCA	TCAACCCGCG	TATGATCTCC	TTCCCCAGCC	ACTTTAGCAT	GCTCGTCTGG
88261	TGAGGAAACA	TATCCTGTGG	GGTATGCGGC	AACAGGGCCT	GTTCCGGCCG	AATGCCCCGA
88321	CAAACGTGTC	CTTGCACTGG	TCGCTTTGGC	GCCGGCAACA	GGCGAACGCC	GTTGGGCGAC
88381	CCGACCTCCA	TGTTCCCAAC	CAACCGCCCA	TAGTAATAAA	CAACCAGCCG	TAGCATCCAA
88441	CACTGCTCCC	CGTCGCCTCC	CACGGCGCCT	TCGTACTCCA	TCCCGGCACC	GAGATACCCG
88501	AATCTGGCGG	TTACCTCGTT	GCGTACGTCC	AGGAGCATGC	CGCCGTGGC	ATCCGCTTCG
88561	TTACAGAGCG	GGCAAGATCG	TACAAGATC	GGCAACAGGC	GAATAACGCG	GCACCTGTTA
88621	GGCGCCGGCG	CCGACAGGTT	CTCCTCAGTG	GATACATCTT	CGACGGTCTG	ACTGTGGCGT
88681	ATAGCGCTGG	CCAACCACTT	CTTACATTCC	CTGACGCTCA	ATCGTCTGTT	ACCGGTCTGC
88741	CGTATGCCTT	TAAATTGACA	ATAGTCCAGA	TACATGTTTC	TCTCATCGTC	AGAGACGCCA
88801	CCCGCGCCCT	TTAAATGATT	CCAAGGTAAA	CGAACCAGAG	TCTTTTCCTC	ATCCAGCCAA
88861	TGCATTCCAG	GATGCTTATC	ATTATCGCAA	CAATCGAGCA	ACCATGCCCT	CAGGCCAGAC
88921	GGCCGGTTTA	CGCGGATCGA	CCCTGCCCGT	CCTTCCGCCA	TCTCTGAGGG	TCCGCTCGCA
88981	TAAACTGGCT	TAAAAATCTA	TCCCCCCCCG	TGCACCTGTA	CTTTACAGTC	ACACCTTCGG
89041	GCACACGCCG	TAGGGCTGGC	AGGGACGGGA	CCCAGCAGCT	ATTTTCATCT	CTAGCGCCGC
89101	CTACTAGCGG	AAATCTGCGG	TCTACAAAAT	CCACCGAGCC	GCCCCAATGT	CACCATGAGT
89161	CAATTACATC	TGACAGATCA	CCAAAGTGAC	AGGGACCTGG	GGTCTTTTAC	TGGAGCCAGG
89221	GCGACCCCCA	AGGTAAAGAG	TGACTGCGTT	GCTGGGAACA	GTGTGCGCCG	GAACGGGTGA
89281	CCGGGCGAGT	CTGCGCAGTA	GACCCATAAC	ATAGAAGATT	TGAGATTTGA	CAGAGGATCG
89341	CACAGCCCGT	TGTGCGTGGT	TCCCCTCTGC	GTCGTTCCCT	GCGCAGCGAA	CCGTGTGCCCT
89401	GGTTCTGTTA	TCCACATACA	TCCCCAGCTC	ATTGCCATGC	AAAAAGACGC	CCTCCTCACA
89461	CCCGTTTATA	ATCTCACACA	CGGTTTCTCT	CTGCTCCGGC	GTTAGCGGGC	CATCCAACCTG
89521	AGGTTTGGGA	AGCCACATCT	TATACGCTGT	CCCATAGAAA	CACTCGTGAC	CCGGTTTGGG
89581	GTCTTGCGCG	TTATGCAATC	GTACCCCTGT	ACGGTCCTGG	GACGTGTGTT	CCGCTACCAG
89641	CGACCCAAAA	TAAAAAACTC	GTATACGTAG	CCGCCAAAAT	GGAGTGATCT	GGTCTGGATG
89701	CGGTGGTGCA	ACCGTCGCCA	ACCTGGCGGC	CCTGGCATAT	ACGGACCGCG	CCGCACCGTC
89761	AGCCTCCGCC	GGAGCGGGAG	GAGGCAGGGG	CGTCCCTGGC	TCAAGCCCAT	GGACGCAGGC
89821	CGCCTCTAAG	TAATTTAGGA	CGGTCTCCGA	ATGACTATCT	AAGATGCAGG	CATAACACAG
89881	CGGATCCACG	GCGGGTCTCA	AGTAAAAAAA	TCTTTCTCCG	CCAAAACGCG	TTGTTGTTGC
89941	CCGGGCATCG	TCCTGTTCAA	ACCCAGCGTT	TTCCCGAAGC	ACCCTTAGCA	GTCTTTTCCG
90001	GCACTCCGAC	ACGTTGTGCT	GGCGTCCACA	TTCCAGATCC	CTATCCAGGC	AGTACGCAAC
90061	CACAGGTTGC	ATGCCACTCA	TACCTCGGTG	CCATGATATC	CTAAAGCTCC	TCTTTTCCTC
90121	GTCGCACCAA	CACAAGTGTT	CGGGAACGTT	GTTTCGCTTC	AAATTGGAAA	TAATCCATCT
90181	TCGCAGGTGA	TTGTGAGTGA	TTTCTATCTC	GGTCATTGTG	AACTTGGTCC	ACGAAAACTA
90241	ACTCAAAAGC	CCTCACCACT	CCCCTAAACT	GTAGCTGAAT	TTTATGTCCA	CCTTATAGGG
90301	TGCACGTGTA	CGTATATGCC	CCGTGAAAAC	CTCGCACTTC	CTCATAAATT	ATCCCCAAAG
90361	CGTTTCGGGT	CGCTCACCTA	AACTAACTCG	AGCATTACAC	GGTTCATAGT	GTCCCGGGTT
90421	TCGCCACTCC	CCCACCGCGA	CAGAGAAACG	AAACGTTCAA	TTTAAAGGGC	ACCAAGCTCA
90481	ACTTTATTTA	AGGAGAAAAA	AACCACCGCC	ATCAGAAGGT	TTCCGCAGGC	ACACACCCCC
90541	AAGACTATTC	TTGGCGAGTT	CGCGGCACGC	TGTAGTTTTT	TTCTGATTAT	TTGTAATTTCG
90601	CATCCAATCG	CCCCAAACAT	AGTCAATAAA	AAAACCGTAA	ACACACACAC	TCTGGTGAAC
90661	AAATTATGCG	TTCCTGGCCC	CAAGACGTGC	GTGAGCGTCA	GCAGCACAGC	GCCTGCTAAA
90721	ACATAAACCA	GGGCTAAAAC	GTTTGACCGA	AACACGAGTC	CGAGGCAACA	AAAAAGCCCCA
90781	ACGTGGGAAGA	CAAAAAAATA	GTGTACAAGT	CCGAGGAGCA	GAGGCGTCGT	CAGGCCAACA
90841	GACAGCGTAC	CCGCGGCCGC	CCCTCCAATC	AAAACAGTCA	CGAGATAAAA	GTCCCATCCA
90901	CACACCTCAA	GCGCTTGCTT	TATAGAGTAT	GTGATGTACC	GCCTAGAGGT	GAGCGAAAAA

90961 ATTGCATGGC GTCGCTGCAG GCCCGCCTCA TAAAGCGGAT GTGACCGCAG CGCTCTGAGT
 91021 GAACAAACGC CACCTACTAT AAAGGCCACC AGGGGCAGCA AAAACACCGG GGCTAAAAAA
 91081 AGGTTCTTAA GAACTAAAAA ATAATACACC GAGAACGCTG CTAAAAATCC AAGTTCGTAG
 91141 TATCTGTGGG CAATCGTGGG GCACAAATAT ACCACGTCAT TCGCCGCAAC AACACAGAGC
 91201 AGCAGGCACA GGCACGACCC CACAAAAATG GAAACGTGAA CCCATGGAAG GTCAACGCCG
 91261 AGGGTGGATG CCATAGAACC GGCAGTAATA AGAAACGCCG AGATGGTGCA CGGTACATCC
 91321 ACCTGCCCGC AGAGCCAGGC CGGTAGCCCA AATATACAGA ATAGCAAAAG CAGCCCATGT
 91381 AAGCCAACCG CGCCCCAGGA GAATATAATG TTCTCAACGC TAATCAGGGG CTCTACAAAA
 91441 TACAGCGAGT GATAAATAAA ACACAGAATA AACGGGGAAG CCGAGACCGT CCCGCTCATA
 91501 AAAGATAGCC AGGCGAGGGA CGCCTCCGAC GTGTACGTGC CCATGGCGCG GCGTTTAAAA
 91561 CAACGGGTTG AACGTCGCGC GAGGCGTCTT GGTTTTTTCTT TTCCCGCGAC TGGGTGAGCT
 91621 GCTGTGTTT CGCTTGCCGT GTTTTTTTTTC CGGTGAGAG CCGCTCGTCC GCAGTGATTT
 91681 GGCGCCCCCG TCTGTCCGCT CGGCACCGTC CTCGGCAATT GGGACGCACT GCTCTTTTAA
 91741 GTCCAGGTCA GGCCTTCTCG GAGGGGACGG GAGCTCAGGA ACCCCCTCGG GATCGGCACC
 91801 TTCCGAGAGA TTGCCCAGGA CGGCATTATT CCGGTCCGTC GGATCTACCT TTAATAGCAT
 91861 GACGCCCCAAC CTGACGTCAG CAAGGCTATC TGTCAGCGGC AGGCCCTCAA CTTCAGAAAT
 91921 CTCATTGGCG TGCCAGCGGA AACCAGGCAA AAAAAATCCC GGAATCTTAC ATGCGTTCAA
 91981 TGCGGCCACC AGAGACTCTA AACTCACATG AGTCGTCAGG TCGCTAGAAA CCACACCCAC
 92041 GTCCAGCTTT CTTCCTCTAG CGCAAGTCCA CTTGGCGTCC GGGGTGTCCG GTTTAAATC
 92101 AATAATTTTA CTAACCCCGT CGAACCTAAA CTGGGCAACT GCCAGCGTTT CGCTTAACGA
 92161 GACGGTGACC ACCTGCTTGG CCCTGGTTTT CTGCTGCCTT AGCCACTTTA ACAACAAAGT
 92221 CAGCGTCTTA ACCGTAAGGA ACAGGCGATT CCCCCTCCCG GCCTGCTCTA GCCTGTCGTG
 92281 GAACGAGGGT AGGTGGGTT CGTCCACGAC GCTCTTGTGC ACGGTGCTCG TGTGATTGTC
 92341 CCCGTAGGCG ATGGTCGTCC TAACAAACTG CGGCTTTCTT TCCGCGTCCG ACTCGTCCCC
 92401 GTGGTGGTAG AACGCCACGT TCATTTCGCG AATGTTAACT CCAAACATCT CACGGGTGTG
 92461 TGTGAACGTG TTCCCAAGGG AGGTGTTTCG AAAGCTAAAG CTAACCTCGT CCGTCACTGC
 92521 AGAATATACC ATCAGCGGCG CCAGTGCAAT TTAAAGCCTG AGACCGAGAA CGCCCGCTC
 92581 CCCCACGCTG GAGAGCACGC TAAGGACGGG GGCCCTGCCC TGGCCGCTGA TCTGTATAAC
 92641 GCCTTTCTTA ACGATGCCCT TAAGTGTGTC GTAAACCCTG CTAATGCTGC CAAGCGCATC
 92701 GACGTCCACC CTGGCGCCGT AATGAAACGA GACAGGCATG GCTAAGGCGA AATTAACACC
 92761 CTAAAAGACG AGAAGAGAAT GGCAAACACG ACAGACACAG CGTTCAATGT TCAACCTTTT
 92821 AATAGAGCCT CTGGCCCCGA AAATGAGTAA CATGGGACAC ATGGGGACTA CAGATCATT
 92881 TGAACGGATG TGACATATTC AGAATTATCA CGCTCAAAAA AGTTCACACT CTTGGCACTC
 92941 GTATACGACA AGGGACACGC GTTTGGGGGG CGGGCACCAG ACAGGGGCGG TATGTTTATT
 93001 GACTTTAGAA TCCTGTCCGC CGTGGCCTGC AAAAAGTCT CGATGTCTCC GAGTTTACCC
 93061 ATGGTCACGT CTCGGCTCTT GGAACGAATA AACAGAGTCT CTATCTCCAC GGCTTCGCGA
 93121 AAGAGGCCGT GGATGTATGC GACGGAGGGG GATTCTCTC GGGAGATCAT GGTGTTGTAC
 93181 AGCAAGCTGG CGGCCCTGGT GTGTAGCAGC TCGTCCCTGG AGATGTAGTC GTTAGCCAGG
 93241 CACACCCCGC GCATGATTCC GCGAAGGCGA AAAAGTCCTA TAGAGTAAAA TGAACCTATA
 93301 AAGTATATCC CTTGATAAAC CAGGAACAGC AGCACCTTCT CGGCCCCGCT GGTGGCCTTG
 93361 CGCACTCGGG AATGCAGCCA GTCAATCTTC TTCGCCAGGG TAGCGTCTC GACTATTTTT
 93421 TTGGCATAAA TCATTAAGTC CCCCCGATTA CCGCCAAAAA ATAAGTTCAG TATGTTGGCA
 93481 TACACTTTGC CGTGGATGTT TTCCATGGCT ACCTGTTCCG CGTAATAGTG GGTACCGTCG
 93541 TGATTGCTGA ACTCTTTAAC TAGGTCTTCG ATGTTAAAGT TTACCAGACT CTCTGCATA
 93601 CCCAAAAATG TGAAGAGAAA CTGGTAAAAA TCCCTATCGG TGGGACTCAA TAGTCGCACC
 93661 TCATCGGAGT CCTCGTGCAG GGAAATTTGA CTGGGGAACC ATCTGTTCTG CCATGTCTCC
 93721 TGGGTGAGTG CTAAAAAGCC AGGGTGGTCG CTCGCGTACA GAAACCGATC TGGGGACTCC
 93781 ATGGCGGCGG TTACTATTGA CAGGCCAAAC ATACCTTGGT CCGCTCACC TCGGCCTTTT
 93841 GTACGCACTT AGACTCCGCC CCCTCTGAAG AGATGTTGTC ACCCACGACC TGATCTAAGC
 93901 ACTGCAGGGC ATTAAGTTTT GTCTGTTTCT GAATTCGACA ATAATACAGC ATGGTTTTTA
 93961 ACCCTAGCCT GTATCCGGTC AGGAGCAAGT CTCGAATATA ACTCGCCCGC GTGGCCTGCT
 94021 CCTCCTTTAA AAAGAAATTA AGCGACTGAC TCTGGTCTAC AAATGGAGCC CGCGCACCGG
 94081 CCCGCTCCAA CTGCTTAATT GGGCAGTAAT CAAAGGCCGT CAAAAAATC TTGTATCTGT
 94141 CCTTCAGGGG TTCTGGAAAT GAAGCCACGT CACCTCCGTA ACAGATCTCT TCTTTGCTGG
 94201 CACCAGGCTT CACTCTCTTA AAAAAAGTCA CGTTTGGCTT CAAGATCTCT TCTTTGCTGG
 94261 TGACCTTCGA TGCGATATTG CCAAAGAACG GATAAAATGC TTCGGTGATC CCCGTAAGCT
 94321 GAGAGGTTCC GGCCGTTGGC ATCAGCGCCA AAAACTGGCT GTTGAAAATT CCATGCTGGG

```

94381 CAATGCTGCG CCCCAGCTGC TCCCATCTCT CCAAGGGAGG GTGGGACGGC TTAACGCCGT
94441 CCCACGTTTG CCAGTGAAAC ACACCCTGAG CCAATCGACT CCGCTCCCAT CCACGAAACG
94501 GAGTCCCCTC GCCGAGTAAA ACAATCTCAT GACTGGTTTG CACCGCCGTA AAATACATTG
94561 CCTGAAAAAT CTCCACGTCC AGCTTGGCGC TCTCGGCGTC AAGGTAGCCA AAGCCCAGTT
94621 CGGCAAACAC GTCGGCCAGT CCTTGGACGC CAATGCCCAT TGATCGTTCC TCCTGGCCGC
94681 GCCTAACGCT CTCGGTAGGC GCCGTCCCGC CAAAATGCA CGCATTGACA ATGATAACTG
94741 CGGCCTCCAC GGCATCATCG AGCAGTTCAA AACCAAATGT TACATCCCCC TTCCCAGGCT
94801 CCACACCAGA CTCTCCCCTG TGGGGTCTGA GGCACTTTGG TAGGCTAATG TTTGCCAAGT
94861 TACACACGGA AGCCTGACCC TCGGTTTGCT GCACGATTTT CGCACAGAGA TTAGAACAGT
94921 TTATGGCGCT CCCTTGCGTC TCACACCAGT GGTGTTTGTT GAGCGCCTCC TTTAGCAGGA
94981 CGTAGGGACT GCCGGTCTTA ATGACAGTGT TAATAAGGGC ATACATCATC GATTTTAAACG
95041 GCAACGAGCT AGAGTGTTTG CCAGCGGCCA CTAGTCTGTT GTATTCAATC TCAAATTCGG
95101 CACCGTAGAG TTTTAGGAGA TTTGGCGCCA CCTCTGGCGC AAACAGGTGC CACTGGCCAT
95161 CTGGGTTTGT TTCGTACAGT CGGAAAAAAA GCTCCGGCAC ACACACGCCC TGAAACAGGT
95221 TGTGACACCG CTCCTGATTC TCCGGCATCT TCGCGTTCAA AAAATCACAA ATCTGATGAT
95281 GCCATAGTTC CATGTAGGCG CTGGCACCAA CAGGACGGAT ATTGTTATCC TTGAAATACC
95341 CAACGTGGGC GTTTATTAAT TTTAAACAGC GACTTGCTAG CGAGAAGGGG GGACATTTCC TCATGAAGTG
95401 AGACATCTAT CCCCACGCCT GACTTGCTAG CGAGAAGGGG GGACATTTCC TCATGAAGTG
95461 CTTTGGAGGT TTTGTCTTCG GTCGCCATGG ACGGCTTTAA AATAAAACAG CTAGAAAGCT
95521 GACCTCCGCG AAGCCCAGGT GACCTTAATA CAGGCGTTGC GCAGCACACA ATCTGTGACG
95581 AGATGTAATG GAACGCGTAA CCAACCAGGT ACATCTCATC CAGCTCCGTT TCGCTCTCCA
95641 CCAGGTGTCT GAGGGTCTCC CGCAAACACG GAAATTTTAT AACTGACAG GCCACAAAAA
95701 CAGCCACCCT CATAAACATC TGGGCCACGC TTTCAAAAAT GGGTGAAGAA CCCTGGGTTT
95761 TCAGCACGTA CGTATCGTAA AACCTAACGG CAGACAGGTA GCCCGAGTTA ACGAAATTTG
95821 TGTATGCCTT GCTCTGCTTA AAGTCTGTGA AAAGACCGTC AAGGGCCGCT TCGTGTTTTG
95881 ACATAAACCG CGCAACCTCG TCGCTTAGCC TTTCCCGGAA TACCGCGAGA TAGTCTCGCA
95941 CCGTAACCGAG GCACCTGTCC TCCATTATTC TGTGCCAAAG GAGACCGGTT AGTGAGTTGG
96001 CCTCTATGTC CCATCCAAGT GTTGCCCTTTA AAGAATTCAC GAGTGATTCT GCGCATCGTT
96061 CAGGGTCAAG GCTTGAGCTA CACCCCCCAG TTCCCGCGTC GGTAAGTAGG GTTAAAGGTT
96121 TGGCAGATTT TGCCGCAGAG AAAGAAGTTT CCGTGTTCAT TGTTAAAGAA ATAGCTTCCA
96181 AGACCCCGGA TTGGAACAA ACTCCGTAAA TTTTAACACC GGTAAGCAG CGCCTTTAAA
96241 GTGAAGGCTT TGAAAAGATG GTTGTAACC GGAAGGCAG CTTCCAAGTC TGCAAACACT
96301 GCCGAACGCA AGCCTATTTA TATACAGGTC ATTCTGCAGC TGAATGTATT TGGTGCGAAT
96361 CACGCCGCTG TAAAAATCCC TCAATTGGGC AGCTATTTCA CAATATCCTT TACCAGACTT
96421 AAAAAACCCA AGTCCTAGCG CCGGTCTATT ATTTACCCTA ATGTAGGTTA AGCAAACATA
96481 AATAGACGAG TGGGCGGGCA AAGGCTCGTC GCGCAGGCTG GACGGGCATG AGTCATCTAA
96541 ATCCACAAAC ATGTCACTAG GAAGCGTAAG GCCAATATGT GTAACAACGG GCTCTCTGGC
96601 GACTACGTTG CCCTTTAACG CAGACGTCAC CTTGGTGACA AACGTACTGT GGACCGTTTG
96661 AACCAACGGC CCGACCGGCG CAAGAACTG ATGAAGCGAG CCGGTTTCCA ACAATTCTTC
96721 AAAATTGGGT ATGGCGTCAA GTAGACCGCT CTCGTGGCCG TACCAAACAC ACGCTATTCT
96781 GTTGGTCTGG GGGGCAGAGT CCGCGTCCAT CCTAGACAGT CGCGCCAGCG ACGTAGGCGT
96841 GAATAACATG TCAATGGAGG ACCCAGTGTC AGTCTGTTTA AAGGAAAACA GGTAGGTGCC
96901 CCGAGGTTCC TGTGAACTCA TGGTCTGAGA ATAAATCAAA AAATCTCCAT ACGTTTGACA
96961 TGTAGGCGAG ACAGATAAAA ATCCATCTTT GATGGCCTCC ACCCCAGTGG TGGTCGACAC
97021 CACATATTTA GAGAGCAGAT CACGAACACC CTTAGAAAAG TCGCGACCGC GAGATAACGA
97081 AACC CGGTGA GGAGGCGGCG GCAGTAGACG CATCAAATA TCATTAGCT TGTTACGTT
97141 TGCGTCCCTG GTCTTCATGG CGTCGTCAAT TCCTGCCGCA CGGGCTGATA ACGGTGACGA
97201 GAACACCGGC GGGCTTTACA AATTAAGTGA CAACCTCCTA ACGTGCACCG GATCGCTACA
97261 ACAGCTTAAA CTCCTGATGG AGTTCCAAC AAAACCACTA CCAACCGCAC ACCTTTTAAAG
97321 CATGCCACCG GTGACCCGGT TTTTAAATAC TGCATTCAA ATAGACAACC CCCTGGTTTC
97381 ATTTATTCAA AAACACCCTG TGTTTTTTTT AATGAGAGTC GCCAGGCTTC CGGAGCCAGT
97441 CATTACAGAC CACCAAAGCG CAGAAACGTC AACAGGCATA CTATCCGAGG TTGTGAATGT
97501 TCTTAATACA GCTATTCGAA AACCACGGA GTCCCCAGCG GCTAAAGACA ACGATTATCT
97561 CGACAACCGT GCCATATTGG CCATGATTAC AGAATACATC CATCACGTAA CTTACGTAC
97621 GCCCTCGGGG ATCCCACGGA CACCACCAAT GGGTATCAGC CATCTACCGT GCGTAGAGCA
97681 AATTTTACAC GAAACCCACC GGCAATACTG GAACCTAACC CTCCCGGAGT CGCTATTTAT
97741 CGACATCGGC GAAGTCGCGT CTCCGCTTCA GACGTGGCTA ATCCTATCGT ATTGTAAAAA

```


97801 ACTGCAACTG GCACCACCGC CCCTATTCCC ACCTGTCGAC GAACTGGCCC GTCGTCTGGT
 97861 TACCGGCCAC CACGAATTGT TTGTCCCCCT ATCGACGTCA CTGGAAACGT ACATCACCAT
 97921 GCCAGTATCA AAACAGCGAG CGTTTGAGAT ATACAGCGTC TTTGCCAAAT CAAAAACAT
 97981 AGTTGACGGC ACACCAATTT TAGCGTTTAC CGACACAGAA CTTACAACGT TCACCCCGA
 98041 ACTGTTATTC CTGTACGACT TCGTAATCGA GTCCCTGTGC AAAAACCAGG CATACGGGTG
 98101 TTCGCGCAAC GCAATTGAGC ATTTTATTAA GAAAGGTATC GATTTTATGG CGGAGTTGGG
 98161 GGCGTTTATT GAAAAAACGT GTGGCTATCG ATCAACCGTA AGCCTGTCCA ACGTGAGAGC
 98221 CGTTAAGGCC AGGCTCGCGA GCTGTGGCCT ATCCAAAGAG CGGTGTGAAG ATTTCCGCGC
 98281 AATGATACTG ATGACACCGC ACGAGACGAC GCCAAAGTGG GAAAAATTTTA CGGACTTTTTT
 98341 AGAAATGGTA AACCAATTAA CACTATACGG GTTCTATTTT TACGAGTGTC TTAACAGTA
 98401 CAGCCCCACT AGCATATCGC TGGCCAAAAT TCAAAATATC TTAAACCGAG TCGATGCCGA
 98461 ACAGAGCGAT CGCGCCCTGT GGCGCACTCC ATTAATCGGG TCTTTCCCGT TCCCCTGGAA
 98521 ATTGAACAAC GTGCTGGCGT TTTTAAAGCC TAGCACCCCC GTGGCAACGC TACAAAAAAT
 98581 CTACAAGGCA ATACCGTCGT ACCTAATGAG GTCTTTGTTC GAAATAGCGG CCAACAAATC
 98641 GTGGGGTAAC ATCGCGCTCG CAGAGAGCGC CCCGCTAACC GACATACAGA CCGCCGAACC
 98701 AGACCAGGGT CCCGTGTCCG CCCAGGTTAT CGCAAAATAT TGCAGCCGTC TCCAAATAAG
 98761 CGCGACAGAT TATGACGCAG CCATCGTCTC CAGCCCGGGA TTCGCCGCCG AATTCGATC
 98821 AACAAAATG TATCCGATCC TTAGCAGAGT GCTCCGAAAC ACGTCCAAA AATTCGATC
 98881 GCTATTCCAA ATTAGATGGC TCATAGTCTT CGCGGCAGAG GACGCCAGAG ACCTAGCCCC
 98941 TATACGACGC TCGCTGGCCC TGGCGTATTT TCAAAATAATG GACATTTTGG AAGAAAAGCA
 99001 TTCTCCGGAG TCGTTTTACA ACCTGCTGGA CTATCTTCAG GAAACATTTA GGTGCATACG
 99061 ACAGGTGATA CCGGAAGCCA CGTGCCCAACA AGAATTTCTA CAATACTTGT TTAATTTTCA
 99121 AAACATTCCA ATAGCAGCGA GCTTCATTCA AACATCCATG ACCTTTGTAG ACGACCTGAA
 99181 AAACGGCATC CCCGGTATAC TGGACCTTGT CTCTTAGGT GCCGCGTTTT ATAACATGAA
 99241 ACTACTGTAC GATTCAACGC TAGACACCGT CGAGATTCCA ACGGAAGAAG GGCAACCCAT
 99301 CGTCGTGAGC ATGTTCTGAT TCAAATCCAC GATTCGCGTC CTCGAGAAGC TCTCAGGGA
 99361 AGCCGTTATC GCGTTAACTC AAACGTCCGA ACCGATGTAC GCAGCGCACA TCCGTCTGAT
 99421 GCAACACCTC ACGTACATGC AAAAGATCGC CGGACACGAA ATAATGACCA CACAACCTCC
 99481 ATCCGTGTTT CACGAAATAC ACGAGGGATA TTTGCAGTGT TTAAAGCGTT TTAACGTCT
 99541 CATGTTACAC GTTACGGGAA GCTGCTGCTA CTCACTGACG CGATACTTTG GATTCTATA
 99601 TCAACCCCCC CTAATACCCG ATACCATCGT ACAAAAAAAT TTAAACTTTA ACGACAAAAC
 99661 GGACACAACC GACGACATCT TAAAGAGCCT GTCACAGCCC GTGAGACAAG GACCTCTATC
 99721 GGCTGAAAAC GAAAGTAGCA GTCGACTCTC AAAAAACAAC GTTGAGCTGC TTCAAAGACT
 99781 GTACGACGAC TTTCGGACCG CCTCCACAAA CAATAACCCC ACCTCTATTA AACTTGAATA
 99841 TTCGGGTAAT TATAACGAAA CACAAGTGTC CGTAGATTGG AGCACATATA ACCTGGTGAC
 99901 ATACACCGCA CCCGACGATA CGTTAAAATT CACCCCGGTT AACACGGAGG CACTAGATCG
 99961 CATGTTTGCA GAATAAACGA TGGGAATTGCC GCCAATTTTT TCGAAATTTA AAATAGAGGG
 100021 CGTGGCAACG ACGCACCAGG CCGACTGCAG GTTCGGACAA TACGCCGGCT CGCAGTGCTT
 100081 AAGCAACTGC GTTATCTACC TCGCACAAAG TTATTTCAT AGAGAGTCCC CCGTGACGGA
 100141 CACTAACGAC CTCGACGACG TTTTACGGCA AGGGGCGACG TTGGACTTTA TACTGAGACG
 100201 GTCCGGGACG CTCGGCTATA ACCAATATGC CCAACTGCAC CACATACCCA GCTTTATCAA
 100261 GACCAACGAG TGGACCGCGG CCATCTTTCA ATCTCAGGAG TACTTTGGAC TAATTGGACT
 100321 TGACGCGGCC ATCCGCGAAC CTTTCATCGA ATCCCTAAAA TCGATCCTAA CCGGAAATTA
 100381 CGCCGGCACC GTTCAATACT TTCTGTTTAT ATGCGGCGAC AAAGCCGGGG CCGTAATTAT
 100441 CAAAAACAAA ACGTTTTTACC TGTTCGATCC CCATTGCGTA CCCCACGTAC CAAATAGTCC
 100501 GGCACACGTA ATCAGTTCGT GAGACCCAC CGCCATACTA GAGTACGTGT CACCGCCAGA
 100561 CAGAGAATAC ACTGGCAGTT TTCTATACAT TATGCCCAGC GAATATGTCA ATCCAGAGCA
 100621 CTACATCACC AACCACTATA GAACTATAAC GTTCGCCAAA GTACACGGCC CGCACATAGA
 100681 TATATCCACC GGCATAGAGC CGTGCAACAT CGAAGACATC CCAAGCCCGC CGCGATCGCC
 100741 GGATGTGACG TCAAAATCAT CCAACCTCGC ACGCGTGCCG AGAACCACCA CCGACACGTC
 100801 GAGCGCCAAA CCCCCACCGG CGACGCTATC CGGTTTACGG GGCGCGGAAC CACCGACAAG
 100861 CTACCCAGAC CCGGAACCA AATTCCAAAC AACACCTGGA TTAACCTCCG CTCCAGCGCA
 100921 AACCGCCGTC GACCACCCCG AATTCCAAAC AACACCTGGA TTAACCTCCG CTCCAGCGCA
 100981 ACTGTCGGCA TCCAGGGGTC GGAACGGGAA GCTTTCCAGC CTTTCAGGAT ATTTCGGATTC
 101041 CGACGAAGCG TCGTCTGACG ACGAAGGGGC CCCACGTAGG CGCGTACACG ACGATGCGAT
 101101 ATCCGCGGAG GTGATCTGGA TGGACGACGA TATATCTCCT CTATATTAC CGTCGGCGAC
 101161 TCCATCGTTT GACGACGTGT TCGACAGCCC CCCAATGAGC CCGGAGTTTA CATACGAAGA

101221	CGCGACAGAG	GACACGGATG	GCGCGTTTCT	AGAACAGATC	GCTCGAGACG	CGGAAACGCC
101281	GTTCTCTGCG	TTCGACGACC	TTATAACGGA	CCACGACTTT	TCTTCCCTTG	ATAAAAAAAT
101341	AGAACAGTTA	ATCAAGTACG	AAGCGCCCTC	GCAGCACCTG	CCAAACATCT	CGGACAAACA
101401	AAACGGGCGA	GCCGTCCGAG	AAGCGGCGGC	CCTCCAGGCG	ATGGACAAAA	TTATGATTAA
101461	TATCATACTT	GAACACGGTC	TAATTACAGA	CGCGCAGGCC	CGGGGACCGT	CCGCGTGCAA
101521	AAACGTTCTT	CAATTTTTC	TCCTGTGGGG	AGAAAACTC	AACATACCAA	TAAGCGACGC
101581	CAAGCAGGTC	CTAGAACTCG	ATCTGCAACT	GATACCGTTA	CATACGGCTA	TCAGCGAAGG
101641	AAAATTCAAA	CAGGGGGCGT	TCAAAAAACA	CCTAACAACT	AAAATCAACC	GGTGTCTGGC
101701	GTCAATGAGG	GCCACGCACG	CAGATGCGCA	AAAAAACTG	GCGTCGGCTT	TCAACGTCGA
101761	AGGCTCACAG	ATTTTCGTCCA	GCGAAGCGAA	AATATCAGTC	CGGGCGCTGA	AGGAACAGAT
101821	CGCCAACCAC	CTGAGTCCAG	GCTTTTTAGC	GGTCTACTCC	GCGGACGAGG	TAAAACATCT
101881	ACGGGATAAA	ATTCAGGACC	TAAAAACAGG	CATCGAGCAG	CGCAACAAAG	AAATCCAACA
101941	GGAAGAACTG	TTTTTTGATG	CCATGCTCAC	AGCCCTGGAC	ACGTTCCAAC	CCCCTCCGAA
102001	AACGGCATT	CCAATGGAGA	TCTTCCGCA	CCGTAAAAAC	GAAGTTATGC	TCGACCACCT
102061	GGCGTCCATA	ACCACCAGGT	TAACCGAGGA	CGCCACCGAA	GCCCTCAACA	ATTACCTGGA
102121	GACCCCGCCC	GACCAAGGAA	CGCACATTAC	CAACATTCCA	AACCTTTTCAT	CCATCGTGCG
102181	AAATATCATA	TCCACGTAA	AAATCCTAAC	GATACGAGAA	AACGACATGC	AATTAAACGT
102241	AACGCCCATG	GCAACGTACA	GGCGTCAGCT	GTTGTACCTC	GGAGGCGAGT	TAGCAACCAT
102301	CTTTAATT	GAGTGGCCAT	ACGAAACCGT	GCCACCGGTT	CAAGAACTGC	CCCTCGTGCG
102361	CGGGGCGAAA	GCAAAAATGG	AATCGGTAAC	AAAAATGGAA	AAGAACCAAC	AGGCTCTCGA
102421	CCAAATACTG	GGAGACGCCG	AAACGTTACT	TGACACAATA	ACCGCAACAT	CCGGAGATGA
102481	GAACCCGGTC	CGCGCCATGT	CCATACCGAT	ACTGGAGACC	TACATTACAA	ACGCAGGCGC
102541	CCTGATAGGC	AGTTCTCGAA	ACCAGCGGTT	CGAAAACTC	AAGGCCGCCA	TCCACGACCT
102601	GGCATCATCG	GAGTCGTTCA	TAATAATGCT	GCTAAACAAC	ACGCGGCTCG	ATAACATATC
102661	AGACAATCTG	GCCAAGATCG	ACGGCATCTC	GACCAACAAC	ACACGTTTTT	TTTCAAAACGC
102721	CACTGTTAGC	AAAACGCTCC	AAACGCTGGG	AGGCAGCCTA	ATACGCGAAT	GCGTAGAAGC
102781	GCTAAATAAA	AGGAGCCCT	CTTCCCTCAA	CAACGCGCGT	CTCCTCGCGG	TTCAAACCAT
102841	ACTGGGGCAC	GCGTCCGTTT	CAGATCACGA	GACGCTGACG	CGAATCGTTT	CCGGCGTCCG
102901	CAGCGCACAA	AAGGAATCCG	CTGGCGATGA	TCCAGATAGG	TGGACGCGAG	TAACCGGTCA
102961	CCTAAACGAG	CTGAAGCTCG	TAATAACCCA	ATCGCGTGTC	GACAAAGCCA	CCAGGCGCAA
103021	ACTGTTAATG	ATAATAACCC	GTGACCTCAA	GGAGGCGGAG	GTGTCTCAGG	AAACGGTCCT
103081	GGAAACACGG	TGGCAAGAAA	ACGTGCTAAA	GTTTCAACCG	TCGACGTCCA	AAGAAATCGA
103141	AGACTTTT	CAGTCGGCAC	CGTCAGCAAA	GGCCCGAAAA	TTCCGAGAAA	AACACCTACG
103201	GACGCTGATC	ACCCAATTCA	ACGGCCACGA	GCGACCGCCG	TCCGAGGCCA	CCGCCGTTCC
103261	CATGGACTAC	ACGCCGACGC	CCATACCCAC	GCCACAGGCC	GTTTCTACGG	CTACCGCGGA
103321	AAAGGGAAAG	GCCGCATGGA	ATAAAATTCA	ACAGGCCCTT	CAGGATTTCA	ACTTTACCTT
103381	CATCGACGCT	TCGGATTGGC	AAGAGATGGC	ATCAGAATAC	TCCAGACACG	GCTCGTCCCT
103441	TCCTGGTACG	GTTGGACCAA	AGCTGGTGCG	CTTCATGGAG	AGCATCTCAA	ACACCCTGGA
103501	CGACATCCTC	ACGCAGAAGC	TGGCATCTCT	GCTTCCAAAC	GGGCCC	CGCGT
103561	AGCGTTTGAC	TGGATCGCGC	CCTATCAAAC	ACGCGTAAAC	GCGTTTCTAA	AAACCATAGG
103621	CCTGCCCATG	GTGCGCAACC	TGGCGGACAA	GATCCATCAC	CAATGCCAAA	CTGTCACTCA
103681	CGCGTGCAA	TCCGCAGACC	TTCAACAGGC	CACGGTGGGA	ACAAGTTTAG	AACGACCCGC
103741	GGCCGAATAC	TGTCGAATAC	TCTCTGACAT	GCAAGTCGCG	TTCAACGACC	ACGGAATCGC
103801	CGTAAGATCG	GAGGCCGCGG	CGTACACGGA	CGCAATCAAC	TCGCCGGCCA	ACGTCGTGAC
103861	TCCCCGAAA	CCCAACCTAG	AAGCCCCCAA	GAAGCTAATA	ACGGCAACTG	ACGCCCTAAC
103921	CGTCGAGGAC	TTTCCAGATT	TCCTAAAAAC	GTCAATCCTT	CAACAGGAGC	AGCGACTCAT
103981	TGCGCTCCAG	AGAGCGGAAT	TTCAGCAACT	AGAGGCCAGC	ATCTCGGCGG	CCGAACGGCT
104041	CCGCCAATCC	ACCCGTGACG	AGATCGCAGG	CAAGATGGCA	ACCGCTATCA	CGCAACTCTT
104101	ACCCCGCGCC	CCCGTCGCAA	TATCATCGAG	ACCGTTGAAC	TTATCAAAAC	CTATAGACTT
104161	TTTGAGTTCA	ACGGTATACG	ACAAAATCCT	GGACAAGGAG	CCTTACGAGA	CAGCCATAGC
104221	GGGATTGCGG	TGGCTGGA	TCGCGACAAA	ATCCGTAATG	GTCTACAGTC	AACAAAACGA
104281	AACGCAACAG	TTAAACGTAC	TGCTGAGCGA	GGTAGAAAAA	CAGAGCACCG	TCGCGCAGCG
104341	TCTACACGAT	TTGGAAGTGT	CGCGGAAAAA	CACGGACGAC	GTAAAGGTGC	TGAAGCAGGC
104401	GCTAGACGAA	CTCGGCCCC	TACGGGTAAA	GGGCGGAAAA	ACCACCGTAG	ACGCGTGGA
104461	ACAAAACTG	GAAAGCATAG	AATCCCTGCT	TCGCGCCACG	AGGACGGCAG	GCGAAATATC
104521	ATCGGAGCTT	GAACGCATCG	GCACACAGGC	GGTTGGCACC	ATCACCCTCC	GCGATTAGG
104581	AACGCTCTCC	GATCAATGCC	GGGAAGCCGC	AAATTTCCTC	AGACAGGCCA	GTCTACCCGA

104641	AGGCTTCTCG	GACATAGGCA	CAAAACTCAG	CGAGCTTCAG	GCGTACATTA	AGTACAAAA
104701	ACAGTTTCTG	GAGCATTTTG	AAACAACCCA	GCCTAACGTC	TTTCAACGCT	TCCCGCTATC
104761	CCAAAACATA	ACCGAAAACG	TTCCGGCGCG	CCCGGCGATG	GACTCGGTGG	CCAGACTGAC
104821	CAATCACCTT	CACGTGCGCG	GCAGCGCGCC	CCACTTTACA	ACGTGGATAG	AAACGCTACC
104881	GACCGTCGAT	CCGGAAAAAC	CAACTCACGT	CCCGGCGCAC	GGAGGAGCCC	CTCTGCACCG
104941	CCAGATCACG	TACTCAAACG	TCCTAGAGGC	GTTGTTTTCA	TTATGTTCCA	CCACGCTAAC
105001	CCCGTTTCCG	ACGGCCCCCG	GTCTGGAAAT	CGCAACCAGG	GCACGCCGCG	GGGACAGGC
105061	CGTAACGTGG	ATGGACAGAC	AGTGGCCCCA	CATCGCTCAG	ACGTTCTCGA	ACGTTCTCGA
105121	CACGTACGAA	CACACCACCG	CCCACGCAAA	CCGGGACGCG	GCATTTAACA	CATTCTTGCG
105181	GATGTGCGTT	TTTACGCAAA	TCATCAGGGG	CGCTAGCAGA	GCCGTGACGC	TCCCGAAGTT
105241	ACCGAGCACC	GCCGTCGATT	TTCCAGAAGA	GATCGTTCTA	ACACCCAGGG	AATGCACAAC
105301	ACTGGTCACC	GCCATGTGGC	CCACCTTGCG	GGCCGCAATC	TTACGATTAA	AATCCTACTC
105361	GGAAGCCCTA	GGACTAATGA	GTCGTTTCCT	CCCGCTAATG	TTCCAGGCGC	TGCCGCACCT
105421	AACGCTAGAG	GCCCAGGTCA	AAAACGGCCC	ACATAACACC	CCGCCTCAGT	TGAGATGCTT
105481	TGCCAAAACA	GAGGCAATTC	CGTATTTCCC	GGCGCAATGG	CAGTCAGCGA	ACCTAGAGCA
105541	GAGCCTGTGG	GGACAGACGG	ACTTTTTGCA	AATCTGCGAT	AACAATCAAC	GCAAGGCCAG
105601	GGTGGCGGCC	GTCACCTGGG	CGCTCACGAC	GATAGACGGC	GTGGTTTTGG	ACCAACTGTG
105661	GTCCACATTT	AAACCCATGA	CAGCCGCGTC	AGACGACACG	TACGTCGACC	TAGTCGAGAC
105721	CCTACACCTG	ACCACCTTTG	GCCCGCGCGG	TCCAACGCCG	AGGCGAGAAA	CGACCACCGA
105781	GCACCCGCCG	TACGAGTACG	GACAGCCAC	GGGCTACTGC	ATCTCGGGTC	AATCGACGAC
105841	GCCGGTCCAG	GCTTCAAACA	CACCGGTATC	CGCTTTCGAG	GCGGTGCTCG	GAGCAATGGT
105901	GTTTCACGTA	CCGATCAGAA	TATTTTTGGC	GGCCACGCCC	AAGCGCCTTG	GCCAGGCGCG
105961	CGGCGGCATG	GGGCTCCTCA	CACCCATCCT	GGAATGCGTC	CCCACGTCG	AGCCCTTCAA
106021	AAGCCTGTAT	AACGCACCCC	GCAAACCCGT	GCCCATTGAA	ACGCTACCCG	CATCCCTCCA
106081	CCCGCACGAC	GAGCGACAGG	TCTTCTGAG	ACAGGCACAG	TGGCTATCCT	ACCATTAC
106141	ACCACACGAA	GCCGCCCGGT	CGTCGACTCC	GCCGCTTCTG	GTGGTCATAG	ACCTGAAAA
106201	CCTCGTAACG	GCAACGTACT	CCAGTGGCGG	TCTGAGAGCA	TTGAGAGCA	GGCCGTTTTA
106261	CGTGATGCCC	GGACCATACC	CCCGACTG	GCCAAAAACG	CTGTCCGTAA	CATCAAACAC
106321	GTCCGTGACG	CACCTCAGCC	ACGACGAGAT	ATGTAACCTC	TTTACTACGC	TATCCCGAGA
106381	ACACGGGACC	GTGCAAGGCA	GGGATATCTT	CGCAGCGGCT	CCGACAAACG	TCACACCGGA
106441	ACAAACCGCC	AATCCTCCGG	CATGGGAAAC	GGATAACCGA	TTAATAACGC	AAACAGAAAC
106501	CGCCAAAAAA	CCTCATATAA	TTCTGCGTC	TCCTAAAGCG	CGGACAGATC	CACCGGTGGA
106561	AACCACGACC	CACCATTAC	AAGGGCAAGC	GTCGCAACAC	GCAAACAGCA	ACGTAAACCA
106621	GCCCGGTCAA	ATTACTTCAC	ACGCGTCACG	TAACACACCG	TCAACCGCAC	CTCAGGCCTC
106681	ATCTTCACCG	GAAAAATTCA	ACACGCAAA	GGTGCCCTCGA	CTAATATCTC	AAACGTCGGA
106741	AACGGCCCAT	ATAAACGAGC	CAGCCTCCGG	CGAGGTCACC	GAACCAAAGG	GAATCTTTGG
106801	GACGTATAAA	CCCCGAGTGC	TCACCGAACC	CGCCAAACCC	GCAAACGCCG	GCGTAGCCTC
106861	TCGCCAACCA	GAGGCAACCA	CCACGGTCCC	CAAGTTACCG	ATTAATCCAC	CCACCGCTAG
106921	GGTCTTTATA	GGGACCGCGT	CCAAACTCTC	GCCAGCCGTC	GAAGAGAGCC	ACGGCGCCAC
106981	ACCCGACGCA	CATCAGTCGA	AGATAGATCG	GGAAAAATAC	GCCGAGAGTC	GGCCTCGCCG
107041	CACCCACAC	CTCGAAGAGG	GGCCACGGGA	GCCTCACGTC	AACACTCCAA	CCAGCGCACA
107101	CATAAACGTC	CCCTCTAGCC	AAGGTCAAAA	AACAGTACAC	GGGCGCGAAA	ATCCCGGCCCT
107161	TCAAACAGCA	ACTCCCAGCG	CCCCCAACC	AACCGCATCA	AACCCGCGCA	TTCAATACAC
107221	GCTCCCCAGA	ACGGACGGCC	GGTTGCTTCA	CGACGAATCG	GAGGTGGAAT	CGACCCCAAC
107281	CGAGGAGGTA	AAACGATCGC	CAAAAACACA	AGATGTGTCT	CACGGGCCCCG	AACCGGACGA
107341	CTCCAGGTGG	ACCGCCCCGC	TCGGTCCAAC	CATAGAGATT	CATCGACTGG	AACACCCCCA
107401	AATTCTCAA	AATATAACAT	CACTCACCGT	CCCCACTCCC	AGAGTCACCC	CAATCCCTCC
107461	CACTAACATC	TGGATACCCC	TATCCCACGT	CAACATCCAA	CACGAAGAAA	TCACACGAGC
107521	CAAGAATGTG	TTAATGCGAT	TTATTCAAAA	CGTACGAAGA	AAACTTCAAG	CGTCGTCTGA
107581	CGCTCTATCC	GAGGCTATTG	CCAGAATAAA	GTTTTTATAT	CTGTAACGCG	CCCATCTCAC
107641	TTGCTTTTTT	TATTTTGAGA	CGAGCGTCTT	GTGTCCAGAG	TAGTTGCGTC	GCTAGGTGAT
107701	AACGAAGTGG	ACCCTATGCC	AGAAGACGCC	ACGCTCCCGG	GTCCGCCGCC	ACCGGGCGCG
107761	GGGCCCATCG	AGCCTATCAA	TGAATGGGGC	CCGCTGGAGA	TCGTAGTAAA	GCTATTTGAC
107821	CCGAGGGTGG	AGGCCACCGG	GGCAACGCTC	GGCGGACCCG	AGCCGGACCC	GGACAAAACG
107881	CCCGAGATAC	TAGAACTAGC	GTCTTTTGTG	CCGCGAAGGC	CCCGGAGGTG	GTCTTTGCGC
107941	AGAATTCCAT	TCTTCTTTTG	CATATACATG	TCGTAATGAT	GTTTGCCCGT	TAAAAACACC
108001	AGATAATTAC	GTTTCGCGAT	GGCATACTGG	GCGGGAGACA	TGTCACCCTG	GGGAAGGTTG

108061	TTCATCTCGG	CAACCAGCGG	GTGATTTGGG	TAATCGTGCT	CAAGGCGTCC	CTGAACGATT
108121	GGCTCCTTAA	CCCACAAGGA	CGACATCTCT	TTTAACTTCT	ATTACACTTT	CCACAGGACA
108181	GGGACGATAT	AGACGAGGTC	AAATAAAACA	GCTCGGCCAC	ACGCAAATGC	TTTAATAGGC
108241	CGGTCGCGCA	GTCCGGCGAC	GCCAAACAGG	GCACGACGAC	GCTAACCCAGG	GAGTTCGCGT
108301	CTCGTATGGC	ATGTGCCGCG	TTGTTGGCGA	GCACGCACCG	TAAATAGGGA	TCTCCAACAC
108361	ACGTGATCTC	GAATAGAGAT	ATAACCCGCA	TGTGCGATCC	GCCACAATAA	GAGCAATATA
108421	CGCGCCCGGT	GGTAGCACAG	ATCGAAAGCT	GCTTCTCTTT	TTGGTCGCGA	CTGAAAAACA
108481	CGTTGGTGGG	TGGGAAATTT	ACGGTTTCAA	ATTTACCCCG	TCCGAAATTC	AAACAGTAAC
108541	CGCACTCGAG	GCACACCACC	ACCTTCGGAG	CTGGCACGGT	CTTCTCCAGT	ACGCTCCTGG
108601	CCACCACCTG	GGACCAAAACA	GGTAGAGAGA	TACACGGAAA	CAGTACGTTA	TACGCCAATA
108661	CTTTTTGACC	CAGGTCGCGG	GATATCTCCG	TCTCGGTCGA	CTCCCCTATG	GGCAACACAA
108721	CACGGGACAT	GCTCAGCAGG	GCCCTAAACG	TCAGGCTCCT	CAGAAGGGCG	TTAAACGGGT
108781	TGCCGCACGG	GACGGTCGGC	GCCAGTTCTC	GCAGCGAGGC	CAGAAGTCCC	GCGTCCGAAG
108841	GGCCCGGGAC	ACTCTCATTC	AGGTTAGCTC	CCAGACGTCT	GGAAATGGAC	GGAACGTTCA
108901	ACTGCATCGA	GACACAACCG	CCCCCGTTCC	ATTTCTTCCG	CAAAACGGGC	AGATCCAACG
108961	CGTGCTGTGG	CAAACAGGTA	ACCAGGGGAA	ACCGCTGGCG	ACAGTTAAGG	GTTTTGCACA
109021	CGAGACAACA	CGCCCTCTGA	AACGACACAA	CAAGATACCT	GGACCACGCG	CTCCTGGGAA
109081	CGGCCGTTAA	ACTTAAACCT	TCGTCTGCTG	GACAGCCAC	GCCGGTGCAG	ATACACCTCA
109141	GCACCCACGC	GTACGCCTCT	AACAACGACC	GGCCGATATC	GTGCAGCCGC	GATCTCACGT
109201	CGCCGTTTTT	AGGTGGGTTA	TCCGGCCTCC	AGCCGGTAGC	AATCTCGTTC	AGGGCGGTCT
109261	GAAAGGATGG	GGCAGAAATT	AACGTGCAAG	CCCATTTTGG	GGGTCGTCCG	TCCCAGGCAC
109321	CGAGCCCGTA	CGTCACAAAA	CACACGTAGC	ATTCCGGGCA	TAGTCCGATT	GAGCGTATAG
109381	AGGCCGCGAG	ATCTAAGCCC	AGCCGAGAAC	CATCCAGCCA	ACGATGGGCA	GGATAAGAAC
109441	CGCGCCCATG	ACAGGCAGCT	TCGTCTTCAG	CCAGGTTAGG	CAAGCGGCC	GAGGCCATCC
109501	CCCAATTGTA	CCGATTGAAT	TGGTTAATTG	GTCATCGCCG	CACGCTCTCC	CGCCCCAATA
109561	TCCTTCAACT	CCGACCCCGA	AGGCGGGGCC	ACGGAGCCCG	TTCGCCTCAA	CGCACCAGG
109621	CCGTTCGAGT	GACCCGTCAG	GGCAAAAACC	TTCTTAAGAA	GGGTTTTTAA	CCGTTTAGCG
109681	CTCTTTGGAG	TCACGACCAA	AAACTGTAAA	ACCTGTCCGT	GCTCCGTAAA	GTAGGTGCGG
109741	CATATGACCA	TGGAGCTGTA	AACGTTTAGG	TCTCCGGAGA	AAACCAGACG	TGCCTTAAAT
109801	TTCATAAAAT	CGTCCTGGCC	CAGGGACACG	GACGAGTTCC	TCTCAAGATA	CACGTCCGAA
109861	TTTATAGGCA	GGTTTTTTCC	AAACTGGGCA	TCGGCGTCAC	GTGGCTTACA	CAAAAAACAT
109921	TTCAGCGTGG	TGGCCAAACC	GTTGTTGATA	ATTACAAAAC	ACGGGGCAAA	CGGGTAGGCC
109981	AGTCTCTCTA	GTTTGTGGAG	CCAAAACCTA	TACACAAAAC	CGAGATGATA	GACGCAGCCG
110041	TGCTGCAGGC	GCACGGTGCA	CACGGGGACC	GCCCCGCCTT	TAGCGTATAC	GGGAGCCCCG
110101	TCCTGACACC	TCTCCAAGTC	CAGGGAGATT	CCAGAGGGTC	CCAGGTAAGA	GACAACATAA
110161	TCGCACAGCT	CGTCAACTAA	ACGTTTTCCG	GAACATCATG	TTATAAAGAT	CCTTTAGGTG
110221	CTGTGCGTGG	CTCCCGTAAA	AACCGCGTCC	GTGCTAACGA	TTTTGTGAAT	GACCTGTTTT
110281	ACGGCGTTTA	CCTTGCGGTC	CAGGACCATG	CAGTGCTCAC	AGTGAGCTGA	CCGCGTCTGA
110341	GCACGATGAC	AGAGGAAAGT	TTTTAAATAC	TGACAGTAGT	TAATGGCGTT	GAGCCTGGAA
110401	TATATGGTGG	GAAACATAAT	TTTCATGTCA	TCGGGCAGCA	GGGACTCGAA	CGCCAATAAA
110461	TCGTACCCGA	ACATCACGTG	AGACAGAGGT	AAAAGATGCT	CACCGCCGGT	ACCGCGTAAC
110521	ACGCGACCAG	CCACCCCTTC	AAATATTTTA	GCCTTAAAAA	GCGGGCCCCC	TAAAGTCGTC
110581	CAACTCAGCT	TAAAAACTCC	TACCCATTAT	GTTCTGTCCT	TGGCAACTGG	AGACCCCTCAT
110641	GAGACACTGG	CCCTCTCTGC	GGGGACTCGT	AGAACAATCC	TTCTTCCCCG	GTACCCCGGA
110701	CGGAGCTTTT	AACAGCCCGG	TATTAATCCA	CACTCAGGAC	TCTCTACAAC	CCGCCTCATC
110761	GTGCAGGGTG	TGTAGCCTCC	TGTTCACTCT	GGTCCGGACA	TTCCCACCCC	CCGACTCTTT
110821	CTTCGAAGAC	TACGGCTGGT	TGTGCCTCAC	CTGCCTATAC	GCCCCCGGAT	CATGGACGGC
110881	TACCCCTCATG	GTGGCTGCCG	ACCTTTTGGA	ACTAACGCAC	GTGTACTTCC	CGCAATGCGT
110941	GAAAGATGGG	CCAGTATACA	CCGCCCCAAG	CATCCTCGGA	ATCGACGTCC	AGCTGCACTT
111001	CTTCGCAACC	CGCTGCTTCC	GACCCATCGA	CAGAGAACAA	ATACTCCACA	CATCTCATTT
111061	AAATTTTTTA	CAAACCGAGT	TTATTAGGGG	CATGTTAGAA	GGCACGATTC	CGGGATCGTT
111121	CTGTTTTTAA	ACGTCCTGGC	CGCGCACAGA	AAAGGACGAC	CAACAACCTA	CGGTTGCGTG
111181	TTGTTCCGTT	GGCCGCGGAA	GTCACACCAA	CCGGGATAAC	CGCTTACCCG	AGGACCTGGA
111241	AGAGGCGTTC	AACTCCACGA	ACGCCGAGGA	AAAGCCCAGC	CTCCTCGGCG	TCTTTTCGGC
111301	AACGTGGGCA	GAATCCGAGC	TTCTTGCTC	CGACACACAA	CAGGCAGATA	CCCATTTACA
111361	ACCTTCCGCC	TTCCCAACCC	CAGAAGATGC	TGACCAATCA	CAGGGCCCCCT	GCCTGATGCA
111421	CCCAACGCTC	AACCTAAAAA	CAAAAAACCA	CACCGCATCC	ATATGCGTTC	TATGCGAGTG

```

111481 TCTGGCCGCA CACCCGGACG CCGGTCCGGT TCTGAAAGAT CTGCGTCGCG ACATTCTGGA
111541 AAACATGGAA AACACGTTA AGCTCGTCAA TCGCATATCG TACATCCTAA ACATCCGGA
111601 CTCAGTGTCA CACGTGCGCG ACGAACATCT GCGCGGCCTA ATTAACCGGT GCTCGGCACA
111661 AGAAATCCAC AAGCATTTTT TTTGCGACCC GGTGTGCGTC CTGAACACGT ACTCGCACTG
111721 TCCCGCGGTT TTATTTAAAT GCCCACCTCC CGAAAAGTAT AAGAAGCTCA AAGCTCGTCT
111781 GGCAACCGGA GAGTTCCTAG ACTGCAACAG AATATTTGAC TGCGAGACCT TACAGACCCT
111841 GGCCGTCTCT TTTAAGGGGT CTCAACTGGC CAAAATCGGC AAAACCACGT CGCTCGAGAT
111901 AATCCGTGAA CTCGGATTTC AACTGCGTCG ACACAACATT CAAATCACCC ACCCGTTTCA
111961 AACCTCCAAC CTATACATTT AATCTTCAGA AGCGCACCAG ACAATGCCAA AACAGCCCAG
112021 AAGTCGATTG GCGTCTCGAG CGCCGTACGC ACCTAGCGTC AGGCGACCGG ACGGGCCCCA
112081 GTCCACGCGA CCGGCATCCA GGCACGGCAG CTGCAAAAGC GAAATCATGC AGTGGAAGAA
112141 GTTAGTTTCA GACACGCAGT TTTTTTCTGC CCTAACGCGC CGCCACGAGC TGGGGGTGGA
112201 CTTTTTAAGA GAAATGGGGA CCCCAGATATG CACCTCAAAG TCCGTTATGT TGCCGTTAAA
112261 CCTAAAACC ATCGCCCCGG GTCGGTGCGT CTCTCTCTCA TCATTGCGAC ACTCGTCAAA
112321 CATGGGGTTC AACTGTTCTG CGTGACAGCC AACTGACAGG TCAGCGGTGT CTCTGGACGC
112381 AAACGCGCTC GGCGAAGATT CCGCCAGGAA AAACAGCGAG CTGTGTTTCA TGGCGTTAAC
112441 CTTTTACCAC CACGCCGAAA AGGTCGTGCA GCACAAGGGC TTTTACCTGT CTCTGCTCAG
112501 CCATCCATG GAAGTCGTTA GGAAGAGCTT CACGCAACCC GGGTTGCTCT ACGCCACCTT
112561 AGTCCTAAAA ACCTTTGGCC ACGATCCTTT ACCTATTTTT ACAGTCGATG CCGATGAGAG
112621 ACTCGCACTC TGGGCGGTGT TCCACACTAG AGACCTACAC CTGGGGGAAA CCAGTCTGCG
112681 ACTCATTATG GACAACCTTC CAAATTATGA CATAACGGTG GACTGCATCA AGCAAACGTA
112741 CATAATGAAG TTTACACCCT CGCGACCGGA CAACGCAACC GTGACGGTTC CTGTCAACAG
112801 CATTTGCGAG GCCGTGGCCA CCCTAGACTG CACCGACGAG TTTGAGAAG AAATTCAAAG
112861 GGGCACGGCC ATCATAAACT CCCAGGGGCT ATTGTAACCT TTCCCTAGAC GGAAACAGAT
112921 GTAATTACAC TATTCAAATG TTAAGTTTTT GTTTTGAACA TATCACCAT AAACAACAAT
112981 TATGTTTACA CAAATTGAAG AGCGTTTCAA TTTTACCATA AACATGCAA AACCCACGGT
113041 AACTAAAAC CAATAGCGAT ATTGCGATGG GATCCCTAGA GAGCAATCGA CGTGCGCCGG
113101 TATTAATTGA CGGGAACGCA CGTTAACTGC TCTCCACGAA TCGCAAACCT CGCGTTTTTA
113161 GGACCATTCTG ACGCCGTTAA TAATTGGCAG TAAACTGCGA AAGGGCGTAC ATCGCAGTAG
113221 TGATTTTACG ATGTGCACAC CTTTCCGCGG TTCACCGCCA ACAACAAAAG CGGGTCACCA
113281 GGCACCTAAA TCGCCCGGGC CTTTTATGCC AAAGTACAAA AGGGACCGGC GTTCTACGTT
113341 CACGAACAAC ACTGTTGATC GCAAATACAA TAGTGTTGTT GGTGACCGCA AACTGCCAAA
113401 TCCTAAAATG CATGGACATA GTCCTCAAAA TCTAGAACGA ACTTCCAAAA ACATGCGGCA
113461 ATAAACAACC CCTTGCAGTT AATGCACATC GTAACGAGAC GGAATCCAAA GAACACGCCC
113521 GATCTTAAGA CCACGGGCAC GTGTCTTTGG GTTCCGGGGG CGTTACGATG GAAGTTCATC
113581 ACCAAGTATC CCATCAACCT GTTACAAAAG CGTAAAGATA ATCGGTTTAC AATAACAAT
113641 AAAAAATAGT GGACGAAGTT ACATTCCGAC ATACAAGCGG ACCCAAAAAA ACACCCCAAC
113701 GCAAAACAAC TGGAGACTGT GTCTTTGGGT CCCTTCCACG TCGCAATGAG ATTTCTGGTG
113761 ACCGTGTGCT GCTTAACGCG TTACAGTTGT GTTTTATGGC TACGTAAACA CACCAATCTA
113821 GAATGCTAAC ACGTGCACCG CGCTTAGGCG CGTTTGTGCA ACTAAGTGT GTGAGGTTAC
113881 TACTCTTATT TTTAACAAGT AGCATACCAA CTGCAATTAA TTGCACTAAA CCCAGTTTAG
113941 TCTTTTTAGT CGAGTCGGCC CATAGTCTTC ATGGAGAACC ATCATTTCAT TCCGTCAACG
114001 GCGTCGGTGT TACCGTTGTT ATTGCGGGCA AAACAGGCTC GGGGGAAAAA AGAGCAACAT
114061 ATCGTCAGTT TAAAACAAC CAAGTTCTAA AATCTCACC ACTCGTAAAC AAAAAACATC
114121 CGAGTTAAGG TGTATGTACC GAACATAACA ACACAAGTTT TTTAAACAC AGCTGCGGTA
114181 AGTAACCCCC ATTGCCACGC GTGTGCGGTG CTAAGTGTTC TTTAAATTAC ATTGTGCGTT
114241 TTACACACCG AGCAGTAATC TCAGGAGGGC GGTTAACGAG CGATATACAT ATTCCCTAAA
114301 CACGGGAACG CGCGCTGACC GCCCTCCCCA AATCACAACA CGGGACTACA AAGCCTAGTG
114361 TTAATATAAT CAAATTAAAA AACCACAGAA ACCTTTAGTC GTGCGCAAAC ACTAGCAAAG
114421 GTACCTAGAG CTTTCCCCTA TACTTCAAAA AACAGCGGTG GGTTATTTGA CCACACGTTA
114481 AGTAAACACC CGTAAGAATT ATTCCCGTTT ATCAAAATGG AAAAATTAAG GCTTTGCGTT
114541 AAAATCTGCT AACGCAAAGG GCACTTAATT TTTCCAGTTT GGACTCGGAA CTTTACCGCT
114601 AACGTTAAAA TTTAATAATG CAAAAGGCAC ATAATTTTTT TTGTGTAACC TCAAAACTCT
114661 ACAGCTAAAG TTAATAACGG CGACTTTGGG CAGCGAATCA GTGTCTGTCT CAAACCCTGT
114721 TAAATTTAAA CACAACAGGG AGCGCGACTA AACACGGACT AACTGCTCAT CGGGCCCTGT
114781 TGAAGAAGTT GGTGTTGCAA TGCATTAGGG AATCTAAAAA CGAAATCCTG CTCGGTAACA
114841 CGGAAATTGT CTTTAGTTCC CTACAGCATC ACAACAATTG TAAACCATAA ACGTACGCGC

```

WO 00/28040

PCT/US99/26260

114901	GTGGGGTTGG	TGTGGTGTGA	AATGCTTGGT	GCAACTGTTA	CATGGGCGGA	TTGTAAATGT
114961	GGTGCTTGGT	GCAACGGTGG	TGGGGTGCAA	GTCCCCCGGT	GGGGTGCAAG	TCCCCCGGTG
115021	GGGTGCAGGT	CCCCCGGTGG	GGTGCAGGTC	CCCCCGGTGG	GTGCAAGTCC	CCCGGTGGGG
115081	TGCAAGTCCC	CCGGTGGGGT	GCAAGTCCCC	CGGTGGGGTG	CAAGTCCCCC	GGTGGGGTGC
115141	AAGTCCCCCG	GTGGGGTGCA	AGTCCCCCGG	TGGGGTGCAA	GTCCCCCGGT	GGGGTGCAAG
115201	TCCCCCGGTG	GGGTGCACGT	CCCCCGGTGG	GGTGCAAGTC	CCCCCGGTGG	GTGCAAGTCC
115261	CCCGGTGGGG	TGCAAGTCCC	CCGGTGGGGT	GCAAGTCCCC	CGGTGGGGTT	CAAGTCCCCC
115321	GGTGGGGTGC	AAGTCCCCCG	GTGGGGTGCA	AGTCCCCCGG	TGGGGTGCA	GTCCCCCGGT
115381	GGGAGCGGCT	CGGCTCCGGG	GTGGCTCCGG	GTGGGGGCGG	CTCGGCTCCG	GGGTGGCTCC
115441	GGGTGGGGGC	GGCTCGGCTC	CGGGGTGGCT	CCGGGTGGGG	GCGGCTCGGC	TCCGGGGTGG
115501	CTCCGGGTGG	GGGCGGCTCG	GCTCCGGGGT	GGCTCCGGGT	GGGGGCGGCT	CGGCTCCGGG
115561	GTGGCTCCGG	GTGGGGGCGG	CTCGGCTCCG	GGGTGGCTCC	GGGTGGGGGC	GGCTCGGCTC
115621	CGGGGTGGCT	CCGGGTGGGG	GCGGCTCGGC	TCCGGGGTGG	CTCCGGGTGG	GGGCGGCTCG
115681	GCTCCGGGGT	GGCTCCGGGT	GGGGGCGGCT	CGGCTCCGGG	GTGGCTCCGG	GTGGGGGCGG
115741	CTCGGCTCCG	GGGTGGCTCC	GGGTGGGGGC	GGCTCGGCTC	CGGGGTGGCT	CCGGGTGGGG
115801	GCGGCTCGGC	TCCGGGGTGG	CTCCGGGTGG	GGGCGGCTCG	GCTCCGGGGT	GGCTCCGGGT
115861	GGGGGCGGCT	CGGCTCCGGG	GTGGCTCCGG	GTGGGGGCGG	CTCGGCTCCG	GGGTGGCTCC
115921	GGGTGGGGGC	GGCTCGGCTC	CGGGGTGGCT	CCGGGTGGGG	GCGGCTCGGC	TCCGGGGTGG
115981	CTCCGGGTGG	GGGCGGCTCG	GCTCCGGGGT	GGCTCCGGGT	GGGGGCGGCT	CGGCTCCGGG
116041	GTGGCTCCGG	GTGGGGGCGG	CTCGGCTCCG	GGGTGGCTCC	GGGTGGGGGC	GGCTCGGCTC
116101	CGGGGTGGCT	CCGGGTGGGG	GCGGCTCGGC	TCCGGGGTGG	CTCCGGGTGG	GGGCGGCTCG
116161	GCTCCGGGGT	GGCTCCGGGT	GGGGGCGGCT	CGGCTCCGGG	GTGGCTCCGG	GTGGGGGCGG
116221	CTCGGCTCCG	GGGTGGCTCC	GGGTGGGGGC	GGCTCGGCTC	CGGGGTGGCT	CCGGGTGGGG
116281	GCGGCTCGGC	TCCGGGGTGG	CTCCGGGTGG	GGGCGGCTCG	GCTCCGGGGT	GGCTCCGGGT
116341	GGGGGCGGCT	CGGCTCCGGG	GTGGCTCCGG	GTGGGGGCGG	CTCGGCTCCG	GGGTGGCTCC
116401	GGGTGGGGGC	GGCCTAAAT	CCTTACCGGT	AAATTTAGCA	GTAAATCCAA	CGAGTAAAT
116461	CCGCAAGCTA	GCCGCACAGA	CTGCGACTG	CCTGCCAAGG	CTCCTGGCGC	CTCTTTTATA
116521	GCGCTAAATG	CCCTCCCCAA	ATGGTTACTA	TGGTTTAGTT	ATGCAACCAT	AATACCAATA
116581	AATGAATCAC	CAAGAATACG	GCCAACGCGC	CAGCGTCCAA	CCGCCCTCCA	ACCGTGCAGC
116641	GCCGTATATT	CGAATTGCCT	TCCGCACGAA	TACGGGGCGC	AGCATGGTCG	CGGGAGGCTG
116701	GCATTGCGCA	ATATTCCCAG	CATTCCAACG	GGCACGCAAG	GGTCCAGGCT	ACCGGGGATT
116761	CCCCAAACAT	CATCCAGCGC	ATAGAGGTTG	TGGCTGAGCT	GCCTATCTGG	GGATTCCCCA
116821	AACCCGAGAC	CCACTGAGAT	GCTATTCACT	GGGACTGCAG	GCTGGGTCTT	CCCAGGACAG
116881	GTGCCTGCGT	GTGTGGTAAG	GGAGTTCCCC	TAATTAATAA	ATTATATTAA	TAAATAAACC
116941	AGGCTAAGCT	GTAATTAATG	AGGCACAGCG	TGCCGACCTA	GGTACCTGGG	GAACCCCTTA
117001	ACGGGATGTA	ATTAATTCAA	ACCTATATAA	ATTCCACCCT	GTTAGGGGGA	TCCCCACGTG
117061	TACCTGAATT	AATGCGGGAT	ACAGGCTGTA	GGTTTGGTAA	TGGGTACCAG	GCTGGAGTGA
117121	CTCATACCAT	GGGATTAAAT	ACCAGGGATA	CAAGCTGTAG	GTTTCGGTAAC	GGGTACCAGG
117181	CTGGAGTGAC	TCATACCATG	GGATTAAATA	CCAGGGATAC	AGGCTGTAGG	TTCGGTAATG
117241	GGTACCAGGC	TGGAGTGACT	CATACCATGG	GATTAAATAC	CAGGGATACA	GGCTGTAGGT
117301	TCGGTAATGG	GTACCAGGCT	GGAGTGACTC	ATACCATGGG	ATTAAATACC	AGGGATACAG
117361	GCTGTAGGTT	CGGTAATTTA	AACCTATATA	AATTTTACCC	TGTTGGGGGA	ATCCCCGTTT
117421	GTACCTGAAT	TAATATAGGA	ATACAGGCTG	TAGAATCGGT	AATGGAAACC	AGGCTGTAGG
117481	ACTAGGCTGG	AGTGACTCAT	ACCATGGAAT	TCAATTAACA	AGGAAATAT	AATAGAATAT
117541	ATATATATAT	AGGGAACCTG	TAAACAAAAC	CCAACTCGCG	GATTGGCTGC	CTGTTTGGGC
117601	CAACCAGCAG	CGAGAATTCC	CTGATTGACA	GGCGGACTGG	CCAATGGTTT	GCGAGCATTT
117661	TTGATTGACA	GAACGGCCGG	CCAATCGCAA	CCGAGAACTC	GGCAGCGAAG	CAAAAGACAG
117721	ACGGCCGCGG	CGACCAATGG	CCGCCGCGGG	TTAGTTTGTAT	TGACGGCTTG	GCCGGCCAAT
117781	GGGAAACGTC	CCTGCCGGCG	GCCCCTAATC	CCCCTGGCTT	AAGGGATTAC	GGCCGTAAAC
117841	ATCGCTGGCG	CGGTGCCACC	GCCGCCGAAC	CCCCGCGCCC	GGTTCGGCGT	GACCTCGCCG
117901	CGACCCCGCC	GCCCTCATGC	GCACCATGGG	TGCGATGGGC	ACCGGCGGCA	ACATTATTCG
117961	CTGACCGCCG	GACGACCCCG	GCGCCAAAGA	GCGGCCGATG	GGTACGCGCG	GCGACCATCG
118021	AAACATTTTT	CAATAACCCC	AGTCTGACCC	CGCGGCCCAA	ATCTGGGGCC	CATGGTGGCG
118081	CGCGGCCCCC	ACCGTCCCCA	TTTCCCACGG	TTTGCTCATG	GGCACCAGACG	GTGCCCCGTG
118141	TGATATGTTT	CAGTGACCC	CGATGACCC	GGGCGACGTT	TTGCGCACCA	TGGTCCCGAA
118201	TTCCCCCATG	AGTACATGTT	TCGGTGACCC	GCCGGCGACC	CCGGGCGGCA	AAAGCCGCCC
118261	CATGGGCACC	GGACGGCACC	ATGTGCACAT	CTTTCAGTGA	CCCGCGGGCG	ACCCGCGCGG

118321 CCGCACCGCG GCGCTGGGG GTGATATGTT CTGATGACCG CCGCCTTACG TTTGCAGCGG
 118381 TGTCAGCGGA ACATATTCTC CCCGGCTCCC GAGCCCGGGG CCCGCGGACC CGAGTTGGGT
 118441 TATTAAAGTT ACGTTAGGGA TTAATTTTAA TCCACTACCC CCCTTAATGT GCGGCTCGGC
 118501 CTGCGGCGAC GCTGACGCCG GCGGGTTCGA CCCATTGACC GCATCCTCGG TGGCCGGGCA
 118561 GAGGCCGGCC GGCCAAAGGT GCGATCGCGG GGTCTGACCC ACCCGTGGA GAAACCCCTC
 118621 CGTTCCGTTG TCTTCTGCCT GCGGTCCCTG GCCCCCTGGC CCACCGGGGA TGTCTTGTA
 118681 GCACTTTCCC CGGTGAGAAT AGACAGGAGA GTGCCCGCAA GACATCGACG GGGTTGCCGG
 118741 TCGGTGAACG GGAGGCGCGC CGCTTGCGTG CGTGAGGTGT CGCCGGTGGG CCGTATGACC
 118801 CCCGCAACGC GAGGGGCGCG TGCGCGGAA ATTTCCCGAG AACCGGCCGC GCCGCTTGGC
 118861 GCGCGGCTT CCTCCCCAA CGACCCCTAA TTTGGTTTTT AAGTTGTTAT TTAAAGCTCC
 118921 GCTGTGTTTG TGGCAGCGCG TTAAGCGTTG CCACCTGTTG CGGAGATCCC CCGTGCGCAT
 118981 GCGCGCCCTC CTCGCTCGG TGCACGCTGC CGAGCGTGCC ACCTGTTTGG TTGTGTCATC
 119041 CCATGTGCGC ATCCCCCAT CTTATTTCCC CGACCAGGCA ACATAAACGT CACGTCGTTT
 119101 GTAAGAAATA ATTGCTTTTT TTATTTTCGT TAACCCCGCA ACCGCGATAC AGTCTCTCGC
 119161 CTTTCACCCG TTGTTTTGTT ACCAGCCCCC CTTGGCGGCC GGCACCGGCG TTAACCGGGT
 119221 GCGTTGGCGG CCACGACCTT GGCCACGTCG CGCCTGGAGA CGGCCTGCAG CAGGTCACTT
 119281 AAAACCATGT AGTTTGAGGG GCTGACCAGG GCCGCCTTTT CCATTGCGA GAGCCACCGA
 119341 AAAAAGGTGG GTGACTGGTT GCGCCTGCGA CCAAGCTGGT CGCCCGTTAG AAAAATAAAA
 119401 TTTTTCACGT CCCTTTCTGA GAGCTGGCGG TCAATGGAGA GCATCAGGTG TTTGTATGGA
 119461 CTAAGTAAC TGGGGCTGGA CCGGAGCCTC TCGATAATAA ATCCCACGTC TAGTAAAAAA
 119521 AAGGTGGAGA CCAGGTCCAA TCGCCCAACG AGAAACACGG CCTCCAGCAA CACCGGGAGG
 119581 GGAATACCGG GTTCTCCAGT TGAGGGGAC AGCCCGTTTG CAAACCCCTC GGGCGTATCG
 119641 TCGGACGCCG GCCGGTCAAA AAGCCACAGC ACGGCCTCTC TGTGCTCTGC CTCTAGGTGG
 119701 CGACCGAAGT CCACTAACCG CTTATGCGGG AACATGGGTC CGGTGCGGCG CTCGCCGACA
 119761 CCCTCTTCTA CCTACACTAG AGCGTTTGAT AAATCACGAC GAACCGCGGG CGTTACTTAA
 119821 AATGTGGTCT TCGTCAAAAT CCCGCAAGGT GGTGGCAACC GACTCGGCGG CGCCCGCGAG
 119881 GGTTGCGGCC GAAACGCCGA CGGCCTCCGC CAATCTGGCC GGAGCGGCG CAGCGGCACC
 119941 GAGGCTAAAC AGCGCGCAGG CGGCCGCCAC CAGGGACGGG GGCAGACCGC CCGTGCGCGG
 120001 GTTTCAGATG GCTTTGTGAA CAGACTCCAC CACCTGGCTG TGAAGGGCAA AGAGCTGCTC
 120061 TTTTGTAAAG CCGCTTTTAA ACAGGGTGGG CCCGATGGCG TCCGTTGGTA AGACGGCCTC
 120121 TAGTTTCCAC CTTAAAGCCT TAAGGATTGA TTTTCTCTGT TTCAGTAAAT CCGCCACGGA
 120181 AAAATCCTCC GCCGCGCAAA AGCATAAAAA GCGGCGCTTG AAAGGATTCA GGTCTCTAAT
 120241 CTTGCCGGCT AAAAATAGAC AGGCGGCCCC CAGCCTCTGA AACC GCCGAG GGGGGATGCT
 120301 GCGACACTCT AGATAGCGAT CCAGAATACT AACGGCCAGT GGGAAAACGC TAGCATCCGC
 120361 CTGGTGGGCC CTGGCAACAG ACCGCATCCA CGTCCCCAAG ATAACCTCGA TGCCACCGT
 120421 CACCTCCGTT TGTATCGTCC CATAGCAGGC CGTGGATGTT ACAAAGGACG CTTCTGTTGGC
 120481 CAGGAGGTTA GAGAGGGCCC GGTCTTGTA CAGGACGGGG TCAATGGTCC CCGTGGGCAC
 120541 TGGGCCAACA GAAGCCATTG TCAAGGCAAG GTAAAGAAAG CGATATAAGT CCTACCTGCG
 120601 GCTCACGGAG GCTTAATACG AACGTCCGGC TTAACACACA ATCTTCTTTG CGCTCTATGT
 120661 CCGCTCCACA CTGGTCCCAT GTCTTCTGCA GTTCAGCCCT GCCTGTTCCC GGAAGCGGC
 120721 GGACTAGATG CAACGCGGAA GCGGCTGTTT ATTTAAGGTG AGTCACAGGC GGGGCAATTT
 120781 GCCAACCAGT GACGCGTTTC CTGCAGTCTG GGTTTTTACC TGGCAAGCGC CACTGGTTCT
 120841 TGGCAGCCGG CCGGTGGGGA TTTTTTTAGT GCTGAATTGG CAGTCTCTG TCCATGCGCA
 120901 CTATGCTGGC CTGGAAGTGG GGGGCGGATG GGTGATGTCG TTCCCACCGG CGACCGGCCT
 120961 TTTTGACGGC CTTGGCGGTT CCGCGGCTTT CGCGGACGCT GGATGCTCTA ATGCCGGGAA
 121021 TGACGGGACT GCCAGGTGCG TCCGGCAAAA CGCGGACGCT TGAGTTACAA AAGATGACTC
 121081 ACTGTAGGCA CTTTGCCAGG CGATACAGTG AATAGGGGTC TCCCAATACC TGACGATAAA
 121141 CGTGACACCA CCGGCCCGGC CGAGGGGGGT CGATCCTGGG TGATGAGGGA TACGGTATGG
 121201 ATCTTCTCTG TGGGCGGTAT TTTCTGGGTA CCTCTTCCTC TGATGAGGGA TACGGTATGG
 121261 GAATGGGGTA TCGCGGCGGG CGCGGGGGGC GCGGGGGGCG CGCCGGTTGC TGCTGCCGCT
 121321 CCTCCCCCTC TTGCTCCTGT TGTCTTTCAG GAGCTTCGTC CTCGTGGGAG TTGTGACTCG
 121381 TGCATCTGAG ACGTAAACAA GGAATCCTC CGGCACGCGT GGGTGGACCC CAACCCCTA
 121441 CGGTGTACGA GTGGGATGTA TGGCCAGGAA ACGGGGGTCC TGGCCGAGAC TGGCCGCTGT
 121501 GGTGGTCTGT GTGGCTCACC GCCTGTGTGC TGTAGGGGA TGGGGCCTGT TGAGGCGTTG
 121561 GCGATTGGGG TGGTCCCGGT GAGTCGGGCG GGGATTGCGG AGGGGGCGAG GACGTCGGCG
 121621 TTGGCGATTG TGCGGTCCA GGTGAGTCGG GAGGGGGCAA GGACGTCGGA GGCTCAGGCG
 121681 GTTCAGGTGA GTCGTGGTGC GATGGTTGCA AAAACGACGA AGGCTGCTGA TTGGGCGATG

121741	GATTATGCGA	CGACGGCGGT	GCAGGTGAGT	GGGGGCCGGG	GTGTGACGGG	GGTGATGGTG
121801	GGGGCGAATG	CGATGCGGGG	GATGCCGGGG	ACGACCCTGA	CGTGTTTTGA	GGTGACAGGC
121861	CTGAAGCTAA	CACCGGCGCA	GACCCGCTTG	GCGACGGCGT	TGGAGATCCC	AACACGATGA
121921	CGGACTCAGA	CCCTGACCCT	GATGGCGACC	CTTGGGATGA	CCCGTGCCCTG	GATTCGGGTGG
121981	CCGTTTCGGT	GTCCGATCCG	TGCCCTTGTT	CTGCAACCGC	CCGCACTTGC	GGCCCTGATG
122041	TTGTTGGAGC	GGGGGGCGCG	GGTGCGGCGG	CTGGCGCGGC	CGTGCCACGC	CCCCTGCCGC
122101	GCCTCCCGGC	CTGTTCTCTA	GTGCCGCCGC	GTCTTCCGCA	ATGTCCCCTG	CAGGAACCTC
122161	GCAACCCGTG	TCCCGATACT	ATGCCGGAAC	GATGTTGCCG	GCTGCCCCAC	ATGTTCCGCG
122221	TTTACTGCGT	GTAAAAACG	GCAGATTAAG	TAGATTGCCC	TTTCCACGAC	CCGCAGCCAC
122281	CTGAGCGCGC	GCACGCAGAA	CCTATGTTTA	GTGCGATTGC	GATTATGTCC	GCTAGGTGGC
122341	GGGCTATTTT	GATCCTGCCG	CGCACGCATT	GACCGTTAGG	TGGCGCAGAG	CGCCGTTAAC
122401	CGCAGCGAGC	ACCGCACGGC	GGTTTTAGTT	TCGTTACTAT	AACGTTTAGT	TAAAATCCGT
122461	GGCCGATATT	GGGTGGCAGT	GTGTAAGTCA	CGCGCGCCGC	GGCCCCCTTA	CCTTGTCGCC
122521	GGCGAACCGC	GGAAAGTCTG	TTCCGCCGCG	CAGCGCGCGG	CCGCTGCCGA	AACCAACGCC
122581	GCTTGAATTT	CGCGGGCGGC	TGGGCTTGGT	GTCAGTGATT	CACACAGATG	CGATGTGATT
122641	GGGCGTGGTG	GTCAACGTCA	CTTGTTAAAC	CGTAAATCTG	GAAATCTTGT	TCCGCCGCGC
122701	CGGTGAGCCG	CGGCCCTAAG	CCTTATAGTG	CTGTGCAGCG	ATCCTGAAAC	TCGAAAGCTG
122761	GCCATAATAA	CCCCAGTATG	TGTTAAGCAC	TCGGTGGCAA	CCTTTTGA	AAAGATTTAT
122821	TGCCGCCGGG	TGTTAAGCAC	CAACACCGAC	CGTGCGTTTT	CAATTATGTC	GGGAGGAATT
122881	ACATTAACGC	TGCTGCTGGC	GACGCTTGCC	ACGGTTCGGT	GCGCTCTTCA	AACGCATAT
122941	GCGGCGGTCC	CCGTGCACTC	TACCGCGTCC	CTGGGGTGCG	TGTTAACGAC	ACCCACGAC
123001	GTTCTTATCG	TTACCTGGCA	AAAACAGGAA	TCGCCTAGTC	CCGTTAACGT	GGCCACATAT
123061	AGTTCCGAAG	CGGGCACGGT	GGTTCAGCCC	CCGTTCGCCG	GTAGGGTTGA	CATTCCCGAA
123121	CACAAGTTGA	CCAGAACGAC	CCTGAAGTTT	TTTAATGCCA	CCCTGGAGGA	CGAGGGGTGC
123181	TACCTGTGTA	TCTTTAACGC	GTTTGGAGTG	GGAAAGCTGT	CGGGAACCGC	CTGCTTGACG
123241	GTTTACGTCC	CCCTGTCCAT	GTCCGTACG	TTTTACCCCC	CGATTAACCC	GACGCAGCTC
123301	GTCTGTCCGG	CCGAGGCCAG	TCCCGCACCG	TCGGTCAACT	GGACCGGCGT	GCCGCCCGAG
123361	CTGTGACGCG	AACCTGAAGT	GTTTCCCCGG	CCCAACGGAA	CAACCCTGGT	TGTGGGTGCG
123421	TGCAACGTAA	CGTCGGTGGA	CCCCGAAGAC	CTTGAGAACG	CCACGTGCCT	GGTCACTCAT
123481	ATAGGCGGTT	TGGCCGCGGC	GCGGCCCTTG	GACCCCGTGT	TTTCGGATCC	CCTGGAAGGG
123541	ACGAGCCACT	ACGTGGTGGG	TGTGGTGGCA	GCGGCCGCCG	TTTTAGGCAT	TTTTTTAACG
123601	GGTGTTTTTT	TGTATAGGTC	TATGTGAGCG	CGCGTGTCCC	CCGTGTCTAG	TGTTTTGTTC
123661	CCCAGTGAGT	GTCTCCATGA	CAAATACAAA	TTTGAGGCTG	GCTTTTTAGG	GTGGTTTCTT
123721	GTGCGACGCT	TCCTGTGTAA	CTGCATACAC	CGGGGTGTG	CCAGGAAACC	GCGTCTCCCC
123781	TTTATGTCCG	CTCGCCCTCC	CAGAGCGAAA	GTGAGAATGG	TTCTTGGGGC	GTTTTGGCGT
123841	TGAGAGAGTC	GGGCGATGTT	GCCGTAGCGG	CGTCTGCAAA	GGCTCACCCG	CTTCTGTTTT
123901	TTTTCTTTTT	GTCAGACAAC	AACATGGACG	CCTTGAACAA	TAACCTTAAC	CTGCTGATGG
123961	ATTTTCTGTC	TAACTATTCT	AATAGCTACA	GTAGTTATGA	CGACAATATG	TCTTACACCT
124021	TAGACACGGA	ATCCACGCTG	TGTCGGCTGA	CGGTGGTTTT	CCCACTTACC	GTTTATGCGA
124081	TTATATGCTT	TTTTATTTTT	TGCATTACGC	TGTTTGGGAA	CGCGTTGGTG	CTATATATTT
124141	TTTTTAAATT	TAAAGCGCTC	GCCAACCTCT	TGGATGTACT	GATGGCTGGG	TTGTGTTGTA
124201	ACTCCCTGTT	TCTGTGCGCG	TCGTTTTTGT	TCAGCTGGCT	GCTGTACGTC	GCGCCACAGA
124261	TGCTCACGTC	CGCGACGTGC	AAGGTGGAAA	TCTTTTCTT	TTACCTGTAC	ACGTACTTTG
124321	GCGTGTACAT	TGTGGTGTGT	ATCAGCCTTA	TCAGGTGCCT	GTTAGTTGTG	TTTTCCCGCC
124381	GCCCCGTTGG	CAAGCACGGG	GCCTCCGGCT	TTCTCTGCGT	GTGTGTGTCT	TTAATCGTGG
124441	CGCTGGCGCT	GTCTGCCAAC	GCGAGCCTCT	ATAGGACGGC	CCTGCGTCAC	CCAGAGACCA
124501	GCGAGTGGAT	ATGCTACGAA	GATGCCGGGG	AAGATAACCGT	CAACTGGAAG	CTGAGAATCA
124561	GAACCACCAG	CGCGATCTGC	GGGTTTTTGG	TTCCGTTTGG	GCTGATGGTG	CTCTTTTACG
124621	GACTTACGTG	GTGTATGGTT	AAAAGCACGA	AGCTGGCCAG	AAAGGGAGCC	GTTAGGGGTG
124681	TAATTGTGAC	GGTGGTGGTG	CTGTTTTTAA	TTTTTTGCCT	GCCCTATCAC	CTGTGCAACT
124741	TTTTTGACAC	CCTGTTGAGG	ACCGGTTTTT	TGGCCGAAAC	GTGCTACCTC	AGGGACGTGA
124801	TCAGCGTGGC	CATGCACATA	TGCTCCCTGC	TACAGAGCAT	GTATAGCGCG	TTCGTGCCAG
124861	TCGTGTATTC	TGGTCTTGGG	TCTCTGTTTA	GGAGAAGGGT	TAGGGATACC	TGGTCCGTGT
124921	TTAGGTGTTT	TTCCACTTCA	GGTAGTTTTA	GAGACACTCA	CGCGACACTT	GGTTGGATTG
124981	TTTGTGTACA	TTTATTTTCA	TTTTGTGTAC	ATTTATTTTC	ATTAAAGCGA	TCTGACCTGC
125041	AGACCTTACC	TGACGTTTAC	TGTCTGTTTC	TTATGCACCA	GAGGAACAGG	GACTGGAAGG
125101	CCAGCGCCCA	CGGGGAAACT	GTCATGTCCG	CAAGCTCGGG	CGGCACGTAC	GCCCACTGCC

125161	AGGGGTGGAA	CGTCACGGCG	GGGTTCGACCA	GGGAGGCCAG	GTGGCGCCCG	TCCGGTGACG
125221	TGATGGCGGC	CACGGCCGAG	TTGGCAGACG	GGTTGCGTGG	GTAGTGCTGC	GCGAACATCC
125281	TCGGGTCCGC	GTTGCCCGTG	TGGTAGTTCA	GGGCGATGCG	CTGCTGCTGG	TTGAGATGGT
125341	ACTCCATGGC	GTCGCGCGGG	TATCTCACGC	CCAGGTACCG	GCCGTTGGCC	CACCCTGGGA
125401	GGACGAGGCC	CCGAAGAACC	CTAAACATGA	TGCTGATGGT	GGTCTGGGGG	ATGTGGAGGT
125461	TTAGCCAGAG	GCACTCGTGG	TTCCCTGATG	CGTTCTCCTC	CAGGTGGATG	TCCCACTGGT
125521	CGGGGGTTTT	GGGTCCGGGC	GTGTCGTGAG	GGGTCTCTCT	AAGAAGACCG	AGCGCCCCCA
125581	GGAGCTGGAA	CCCAAACCTC	CCGCAGCATA	GTGAAAATGT	ATCCGCTCGG	CGGAAGAAGG
125641	CCATAAGGCC	CCCATAGCAC	CCAGGGTCGT	TGAGAAGACC	CATGATCGCG	CATCGGGCCC
125701	CCACGTAGCT	GTCTTCGATG	CCCACGGTTC	CACCGATGGT	CAGACGGGAG	AATCCCCGGA
125761	GGATGTTCCC	TCCTCTAAGG	TCGTCGGTGG	AGACGGCCGC	GACGTCGAAC	CCGACGTTGG
125821	TGAAGGCGGC	CATCAGCGCC	CTGGGAAGCG	GGGCACCGGG	GGTGACCAAG	GCGGCCACTG
125881	CTGGCGGCCT	CGACGGCGTT	GCAAACAGAG	TCAGTTCGCT	GTTTCTGCAA	ACCTCGGCCA
125941	GGTGGCCCAG	GTTGTGTTGG	TTGCACCCGT	AGTCCTTTCT	GTAGAGTTCC	TGCGCGGGCG
126001	TGAAGCTGGG	CCCCCATGAG	TACCACTGTT	CGTCCGAGAA	CGAGGTCCAG	TTTGCCGCCA
126061	CCGAAGTGAG	GGTCTGTGAA	TAGACTTCAT	CGTTGTTGTG	TGAGATGACG	ATTCTTTCTG
126121	ACAGACCCTC	CTGACCCACG	GTGCCGCACA	CGATTGGCCC	GCAGTCAAAG	TTTTGGCACG
126181	CCTGGCGCAC	CTCGTCGACG	TGCTGGGGCT	GGATTTTCGAA	GATGACGCCC	GGGGTTTCGG
126241	ACACCAGCCA	CTGCAGGGGC	GTTCCTCTCT	ACGGGATGCG	AATCTGTAGG	CCTCGGTTAC
126301	CGCCAGGGC	CATCTCGATA	GCGGTAACCA	CCATGCCTCC	GTCGCTGACG	TCGTGGCCCG
126361	ACACCACCAG	ACCCCGGGAG	AGCAGGGCCT	CTGTTAGCAT	GAAGAGGTTG	GCCAGGTGTG
126421	TCGCCTGAAC	GTCCGGTAGG	GTGGGACTCG	GCAAGAGACA	CAGGTGCTCA	AAGGTCGATC
126481	CCTGGGTCAG	GTGCGGCACG	GGGAAGGACA	CCAGCACGAT	GAGGTTACCG	GTGGCCTTCA
126541	GGTCAGGTGT	GACGCGTTGC	CTGGACGACT	TCACCTCGGC	GGTGGCCGTG	ATGACGACTG
126601	CGTTAAACGG	CACGGGGGCT	ACCGTCTGAT	GCTGTTGGGT	GGCGCTGATC	AGTCTTCCG
126661	ACAGGCACGG	GGTGCTGCCG	GCCGAGCTGA	TGGCGAAGTT	GATGCTCAGG	TCCCTGCATA
126721	GTTCTTTGCA	GGCAAACAGT	GTGTGCTGCA	GGAGCCAGGC	CTGGTCTGCC	TCCGGGTTCC
126781	AACCGACCGA	CGCCGTCAGC	GTGATGTCGC	TTAGACGCCG	CACGTGCGCT	AGCATGATGT
126841	TGGTGACCGC	CTCGCAGATG	GCGTATCTCG	CGCCCACTGC	CGCGTTGATG	CCCATCTTGT
126901	ATGCCTGTTC	TCCATAAGCC	ACGCACTGTC	CGACCCACCG	GTTCTGCCCC	CTGCCCTGGG
126961	TGACCCAGGT	TTCTGGGCTA	ACCAGGCGTT	CCGTGCGGTC	CTGCCTGGTG	ATCGGCTGGG
127021	GGCGATATAT	GGGCACCCGC	GCCATTCTGT	CCGTAAACAC	CGACGTGTGG	TTGACAATGT
127081	GGTAATCTGA	CAGCGGCCGG	CCCAGGGGTC	CCACTTCGCA	CTGCTGAGCC	ACGAGTCCGT
127141	TGGAGCATCT	GTCCACGTGT	GCGGTGACAA	ACTCTTTGCT	GCCAACCGTC	GGCATCGCA
127201	GAAGCTGATC	GACCACGGAG	GCCAGGCGGA	ATAGGCCCCA	GTCGGTCCGC	GAGGGTGCCT
127261	GTTCCGCCAC	ATCCTCAGGT	TCTTCTGGGC	GCACCAGCCA	GTTGGAGGAA	ACGGGCTGCT
127321	CGTCGAACCC	AAAAGTTGCG	ATGACTTCGG	CCGATGTTGG	CTGTCTGATC	GGCCACGCTC
127381	CCGGGTTCCA	CAGCTCCAGG	TCGTTACAGA	ACTGAATTCC	AAGCTCTTCG	CAGGTTTCCC
127441	CAACGACGGC	GAAAGGGCAT	CCGAGATGTC	GTGCGGCCCT	CCTGATGGCA	TCCAACGGGC
127501	CCGGTTCGGG	CTCCGTGTCT	CGCGGGAGGA	CGGCAAAGAC	CACGCAGGCA	GACACGTTGA
127561	GAAACTTGTT	AACTAGGATG	TCGTTACACG	TTTCCCGTGA	GATGTCTGGC	GTGGCGGTCA
127621	GTTGGCTCAG	AATGGTTGGT	GGAAGCTGAG	AGACAAAGAG	GCGCAGGCCG	CCCCGCGAGA
127681	CCAGGGCTCC	CAGGTGGCCG	ATGACAGAGG	CGGGTTCATG	GGCGCGATTA	ATGCTGGTAA
127741	ATAGGGGCCC	TTCCAAAATC	TCGTAAGCCA	CGGACAACGT	TTGGGTGATG	CGGGTAATAC
127801	CTGCGGCGCT	CCCCAGGTAA	AGCGAGCGCT	GGTTGCCATC	GCCGTCAACG	GGTTCAAAAG
127861	ACCCAAGACA	GATGATAGGC	TGACTGAATA	AAGACCTCCT	GAGGAATGTG	TATGCTTGAG
127921	GCACGCACGA	TAACAGCGAT	GTGGTGGTAA	TAACGTTCGC	CTCGCTGGTG	GTGGCGCTGT
127981	GGACGGTTTT	AAGAAAGCCA	CCGAGGACAG	GCGTGCCGGT	GCGCGCCAGC	TGCTGGCAGT
128041	GGAGTGTCGC	TGTTGTGTTA	ATAGCTCTGT	GGCGTGCGCG	AGAAAATGCG	CCCACTGACG
128101	GCGTAGTGGC	GTAAAATCCA	CACAGGGCCG	ATCTGATTTC	GCCCCCGGGC	AGCAGCGTGG
128161	CATGGAACAG	AATGTTTTGC	AGCGCACCTG	CACCTGTCTG	AATGGCGCTG	TGCAGGTGTG
128221	TAAATGAGTC	AGCTATGTGG	GTTACGTTTT	CGCACGGGAG	GCGCTGGAAA	ACGCAGTGT
128281	AGCTCCTGCG	GGCCATGACG	GCGTATCTGG	ACACCGTATA	GCTGTTGCCG	TTGGAGGCCT
128341	GCACGGCCAG	CGGTAATATG	TTCCGTTGTA	ACGGGAGCAT	CACCGCGGCG	CATATTGGGT
128401	CTCTCTCGGG	CAACGGTCTC	CAGGCGTGGG	ATTGCAATGT	CACCGGGAGC	TGGCGCTGCA
128461	CGCGCACATC	ATATTCTACT	AGTGTGCCAA	GTGTCAGGGC	GGCCAAGGTG	CCCGGGGGTA
128521	CCCGATCGGC	GACAAACCGT	CTCGTCTGGC	AGCTCAGATG	TCTGCCACC	TCTAACCAGA

```

128581 ACGTTCTATC GAGGCCGCTG TCTCTAAGGC ACTGCACTAT TTCGCTAGAT CTTGTGGTAG
128641 GTTGGCGCAT CAGGTCCTGGG CCATAGGGCA GGGATATAGT ATGATGGCCC TGGAGGTGCG
128701 CCGACCGAGT TTCCAGAGGT GCATAATTAA CCAGAGGCGC CAGAAGATGC CAGATAACGC
128761 CCAGCGCTGG GTCGTCATCG TCGTTGTCAA AGTTATCAGA GGGGCGTGTT ACAAGCCAAA
128821 GTAAAAATTC ACTAAAGCAC TGTCTCTGGCA CAAGCGCCAA AACACTTTCT GCGTCCGAAT
128881 TGTCATGAAT AAAAGCCTCC TCTTCTGGAC TAAGGGCTGC AGCGGCCAG CGAGGGTTTCG
128941 TGCCTTGGGC CATATTTGCT AAGTCTAGCC GGCACAAAAG CAAGCGGGTG GGACTTTAAT
129001 AGGCGGTATA GGGGTTGTTA GGTATGCGGT GGGGAGCCGT CCATGTTACA TGGACTTCAA
129061 TATTAATTTA TGTTAGTTTT GGGCACCTTG GGATGTTACA CTTATAACTT CCCCCATGTC
129121 ACAGTAATCA CTTGACAGAT CCCCTTCTAA CTCATAACAA CTGTTTCGGG GTGTTGAGGT
129181 TACAGGTAAG GGTGGGAGGG GAATGTTAGG TGGCGAACCA AAGCATAACG TCGCGGGGCG
129241 GGAGTGGGAG CCTGTAACCC CAGAGATGTC ACTTACGCTT GTTAGGCGAT CGACAACCTAC
129301 CTCCGAAAGT GTGTCCTGTT GGATGTTTTG TGGATTAGGT AAAACAGAAA GTTGTGGAGA
129361 AAGTAACCTT ATAGATGACC TCCTGCTGGC GCGTGGCTGG GTGACAGCTG GTTGTGTATG
129421 AATGAACACT TCCTCGGGCG TTCCTGGGGT GGTGGGTGTG GTCTCACTAA GGACGGCCAA
129481 CTCAACACTA ACTTCCTCCC GTTCAGACCG TGAGCGGTTT CGTCTGTAGC GTCTTGTGGA
129541 GGGGGTTGCC TGAACCCTTG TTGGTGTAAC CAATCCAGGT AACCGTTAAA TGCACGCGGT
129601 CAGGGCGATT TGTAACAAAC TAAAAACGC ATAATAAGCT TACAAACGCA TTTTGGTAA
129661 CAGTTTGTAT AATTTAGCCC CAAAGTTTAT ACAAGCGGAA ACTACTTACC GATTAGTAAA
129721 ATGCAAACCG CAAGAAGGAT AACACTCACT GATTCTGTTC CAATTGGTTC GAATTTAAGA
129781 ATGGAGAGTA AATTTGCCCC GCTGAGAATG CCTGGAAATA AGAGGCGCGT ATTTTACATG
129841 TGGTACAGGG TAGAAAACCT TGTAGGTTTC AGTTGAGTCA CCCTGCCACG TAAACCCGCC
129901 TAGAGTGCTG CACGCGGTGT TGGTTGCAGG AAGTACATCC TAATTTTAACTCTAAAAGGG
129961 GTTCCTTGTA AAAATTATTTA AGTTATGGTG TACTTACATA ATATCCAATG AGTAGTTACA
130021 CTCCAAAAAG ATACTCGATA AAATGCGTGA TAGTGAAAGT TTGCAACAAA TGCAGCGGTG
130081 AGTAGGCCCC AGAAAATGAT AAACCTATA TAGGAAATTT TATTAGTAC GTTTGTGTAA
130141 GTGCAAAATA AAATTTTAAA TAAATACTTT ATATTCATGT TACCAAGTTT AATTTGTGGT
130201 GGTGTCTCTT GAATTATATG TACTCCTAGT TCTGAGGCAA CTGTATGTAG TGCAAGCAGC
130261 CTGCCTTGCA ACATAACCAA TAGGCATGTT CCATGATTCG ATATTCGCCA TGCCATTTTA
130321 AGTGCCACGC AGATTGCAGC AATAGCTATA AAAAAACAAA AGTATGTTAA TAGTCTATAA
130381 AGTATAAAAC ATTAACAAAC AATTAACAAA TTAAATACCT GTATTTGCCG TAACTATAGA
130441 GTATGATAAT AGTAAGGTGT AAGACTGTGT TGTTGTAGTT TCTGTTAATG CATAAAGTCC
130501 CACAAGTGCT AAAATAAAAA AATAAATGTT AGTTATTTAA TTTTAAAAG TTTTACTAT
130561 TCAAGTAATT CAAAGTTGTG TCATACCTGC GTAAATTTGCA AACCAAGATC ATATTATTCT
130621 TAGTATGTTT GTTTTTCCAC ATAGCCACAC ATAACCATAA AACACAATGG GCATTAAAAT
130681 TACTGGCAAC AGCGCAGATA CTTTGTAGTT TGGAGTCCAC ATAAGAAATG CCGTAAGAAT
130741 AACAGTGCCCT ATCCATGTTG GTCCACAAG AAGACATGAT GTTGTTTTAC TAGAAACAAT
130801 TTTGCGGTGGT TTTATAACAA ATATTAATAT GCCTGAAAAA TATAAACAAA CGATTAATTT
130861 AAGGCCAATA TCATAGTAAA ACAAACTTTA AACAGGTAAA AAGTTACGTC TTACCTATGT
130921 AAAATTGAGA TACGCATGCA ATAGCACTAC ACGTCTGTAC CAAAATACTT GCGTTGTCCA
130981 AGGCCAATGC CGATAGTAAA ACACAACATG CTGCAACAAA GTACACAAA TATAAGTTTA
131041 ATTTGCTAAT TAAAATTAAT ATTTCAAATG TATTATAAAA TCATACCTGT AATCCATGGG
131101 AAAAAAATTG AAGGCAACGG AGTTAATTGA CCTGCTCTGC TTCGATTACA ATACAACTA
131161 ATAGTTTTCC ATAAAAGAGA ACAACACGTA ACAAATGAAC AAATAATTGT GACTGCTTGA
131221 TTAGAAGTGT CCCTGGCATG TTGTACCAAG GCTATTATCC AAAACGTTAA TGTAAGAAGG
131281 TTTGTAAGTA ACCAACTACT CCAAATAAAA AAGGTATAGC TACACGCCAT TTTAAAATAA
131341 TCAAACTGT ATTATCAAGT TAAGGGGGAG TTTGAGCTTT AAAAGGTTGG TTACATCGTT
131401 TCCAGGCAAA CCTCACACTG AGTCACACAA AGGTTTCTGT GTGCCCCGTG ACGGGAATCT
131461 GCCTTATTGC TGATTTTGTG GGCAACCAAC CAAAGAAATC ATGGAAAAGC AGAGTGGGAA
131521 TATTTGTTTT TGTTGTTGG CCTGGATGCT TGGAAACATT CCTGTTATTT TGATGTTAGG
131581 CCAAAGTGTG GAAAACATTA AGAGTTGTTA TTGAAAATAT TTTTGGTTAA CAAAACCATG
131641 TTTTAGGTCC CAAAAGGAAC ATAAAAATGT TTAATAGAAA CATGCCTAGT ACAGAACATT
131701 TTGTTTGGTA CGTAAACTAA AAATATGTAT GGTAAAGGCT AGGGGTAAAG GCAAGGGGTA
131761 AGGGCTAGGG GTAAGGGCAA GGGGTAAAGG CAAGGGGTAA GGGCAAGGGG TAAGGGCAAG
131821 GGGTAAGGGG AAGGGGTAAG GGCAAGGGGT AAGGGCAAGG GGTAAGGGCA AGGGGTAAGG
131881 GGTAGGGGTA AGGGCTAGGG GTAAGGGCTA GGGGTAAGGG CTAGGGGTGAG CTAGGGTGAG
131941 CTAGGGTTAT AGTTATAGTG TAAAATAATA GGCCTACGAT AAAATGTCAA CATATATTTT

```

WO 00/28040

PCT/US99/26260

```

132001 TTAATTTGTG TTTCATTAAC AGCCATGGTG TATTAGAGTA AAGGTTAACG CTTCAATACA
132061 ATATACAAGT AAAAGTAAAC CACACGAATT TATAACATAT TTACAAAAGC GAACCAAGCT
132121 GGCACATGTA ACTTCACGCT ACCCTAAACG TACAATACTG GGACTAGAAC CCAGAGGTAG
132181 TTAGAATATA CGGTAGTTAC AGAACTTTGC AGTTCCCTTA GGCCAGCAGG GCTCTGCGGT
132241 TAATTAAACA AAGTTTAAAG ATAAC TGAAG CTTTAGGAAG TGCGTATGGG TGCAATGTGT
132301 TCCAAATAGG GCAAGGGTTA CATAAACTGT TGCCTAGCGG CCGGGCCCCG AGGCGCCCCG
132361 CCGGCGCCGC CGCCGGGCCG CGGCCGCCAT CTGCGCCCCG GGGCGAGGGT CCCC CGCGCG
132421 CCCCCCGGGG CCGCGCGCCG GCGCGCCGCG GCCTCCCCCG GCTCCCGGCC CTCCGCCCCG
132481 CCGGCCCGGG CCGCGCGCCG CCGCCCCCGG CCGCCCCCGG CCGCGCGCCG GGCGCGTTTC
132541 GGTTCGCGGG GCCGGGGGTC CCGCGGGGGG CCGGGGCCGC CCCC GGGTGC CGCTCCGCGG
132601 GGCCCCGCCG ACTCCCCGGA GCGCCCCGGT CCGGCCGAGC CCGCGCGCGC CGCGCCCCGA
132661 CGCCCCCGGG GCCCGGGGCC CCACAAGCCG CGGCGCGCGG CTCCCGATGC CGGGCGGGCG
132721 CCGCCCCGCA TGGCGGTCCT CCGCCGGCCT CCCCTCCCCC ACGCCGCCCC GAAAGGTGGT
132781 CTCCGCGCCG CCGGGAGGGG GGCCGGGGCC CGGGGCGCCT CGGCGGGGCC CGGCGCGGGG
132841 CGCGACCGAG GGCCCCGGA GAACGGGGGA TCGGGAAAAC GCGAGGGGAG CCGGGGACAG
132901 GGGACGGCGT GTGCGTGCTT GTGAGACACC GGTACGGCT GCCTGCCTGC CCGCTGGCCT
132961 GCTTGCTGAG GGGACAGTAG GCCTGCTTGC TCGCTGGCCT GCTTGCTGAG GGGACAGTAG
133021 GCCTGCTTGC TGAGGGGACA GTAGGCTTGC TTGCTCGCTG GCCTGCTTGC TGAGGGGACA
133081 GTAGGGCTGC TGGCTTGCTA GTAGGGCTGC TCGCTGGCCT GCTTGCTTGC TCGCTGGCCT
133141 GCTTGCTTGC TCGCTGGCCT GCTTGCTTGC TCGCTGGCCT GCTTGCTTGC TCGCTGGCCT
133201 GCTTGCTTGC TCGCTGGCCT GCTTGCTTGC TCGCTGGCCT GCTTGCTTGC TCGCTGGCCT
133261 GCTTGCTGAG GGGACAGTAG GGCTGCTTGC TTGCTAAGGG GACGGTACGC CTGCCTGATG
133321 GCTTGATAGT AGGGCTGCTG GGCTGCTAGT AGGGCTGCTG GGCTGCTAGT AGGGCTGCTG
133381 GGCTGCTAGT AGGGCTGCTG GGCTGCTAGT AGGGCTCCTG GGCTGCTAGT AGGGCTGCTG
133441 GGCTGCTAGT AGGGCTCCTG GGCTGCTAGT AGGGCTGCTG GGCTGCTAGT AGGGCTGCTG
133501 GGCTGCTAGT AGGGCTGCTG GGCTGCTAGT AGGGCTGCCT GCTGGCTTGC TTGCTTGCTT
133561 GCTAGTGGGG CCGCTTGCTG GCTACTAGGG CTGCTGTGCA GCTGGGAGAA CAGAGTAGGG
133621 CTGCCGGCCA GCTGCGTGCG AGGGCGTCCG AGGGCCAGAC GAGGACACGG GACCCGGGCC
133681 TCTCCCCCGC CCGGACCGCC GGGCACCCGG CCCAGATCT

```

SEQ ID NO 2

CDS nucleotides 1353-2624

SEQ ID NO 3

```

MFVLVLFMLLQPVSVLLPAKLTSVPTWCPHPGDTYLLTCRGSTARDQRSTQWFRNNTLMRGSNFGRLVSVTPNATI
SDRYACQTKTTTRSNNIDFRVSSSRLTLQERCSSYGYTYANNTRVLRCSGGNVTLRN VVFLHNGTAVINGTTTNIHTFV
LTEKTGGTYFCSAFIGNKFPYSQTINVFPTSFTFKPTNDIPNESHFNKTGQIQQTASVQHPENYVVFVSVFVSIGVLTGI
AISLIMCWLFTIRCENSESSTNSYASQTSYIQPSHNQRSNTNECSRHTYRNAHQEESIEELPNQHTSETDSCCQLVLE
VKNVAYDGPQENTINEVMEQYDDVVVKNIEQTSYEDNVEHMDYSDTINPNFNYSGLILEEVDEVFYNELNQYHGLILE
NLDHNEYNHLNELNMIEQYDWLE

```

SEQ ID NO 4

CDS

complement (2692..3258)

/note="dihydrofolate reductase; ORF 2; similar to Kaposi's
sarcoma-associated herpesvirus ORF 2"

SEQ ID NO 5

```

MDITVNCIVAVDEQLGIGKNGTMPWPLYLRNEMMYFQKMTSTPSVVGKNNVIMGKRTWFSIPEKKRPLVNRINIILSREL
REPPHGAHFLARTLDDAFNFYRQYKLKEQLNTVWVIGGKSVYESVLNFKCPLKLYITRIMESFDCDVFFPSINFTEYTML
SEIPGKDTNFEENGIKYKFQVYEKNFNK

```

SEQ ID NO 6

CDS

3676..5613

/note="complement binding protein; ORF 4; similar to
Kaposi's sarcoma-associated herpesvirus ORF 4"

SEQ ID NO 7

/translation="MTFKLFPLFLLHAIMYVHCDENCKPPHFTEYRVKSNTEKDLYSV
GETAELICRPGYVTNTKIITTECLONGTWSTPNFPDCDRKRCPTPADLLNGAVHIHGGD
NALKFGSNISYECNEGYDLIGSNVRFILQDTENVNWDSENEPVEIQKCIKPPAVEHG

WO 00/28040

PCT/US99/26260

DYLPNQDVYNYGDAITFKCSLSYTLVGSTTLVCTSNKKWSNSFPTCLMLVCESQIDN
 GYIDIGLSRRYNHGQSITVKCSGDYINIVGPETLTCTNTTWPPLPKCVLVTNNPSTPM
 PETPMPETPTPDYQKINLSTAKTATTPNAFVTTVVVSPEKDDVTCVKPHFERFMVKAEN
 DKEKYSVGASVELICRPGFTKMQSTVSVECLSNGTWTAPNAKCHRRKCCPTQOELLNGE
 YIVTSGEDAFKYGTNITYKCNQYQLLGSVMVRI CMLKDDDLKTVDWEKPAICDIEKCK
 PPPQITNGKYHPVKDFYQYLDVTFSCNRDFSLVGDEMTTCISNTWNKFPFPRCEQITC
 SAPNIAHGKLLTGSSSVYKYGQSVTIGCETGFTLIGSEISTCKDSSWDPLPTCVPÄV
 SMPSDTPKPKETKKPNTPTPEAPKPNTPNVGTHTPTFKPPPQNPPIAPPMSKWKRVHVVLV
 LFASVASLLFVLAALYCCFLK"

SEQ ID NO 8 CDS 6045..9443
 /note="ssDNA binding protein; ORF 6; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 6"
 SEQ ID NO 9 /translation="MASKGNAGQPLEDNQGSRAPIGACGYVYAYSKQDFPFAEASILG
 NRPSGSGVFSLPILYGLTVEHEFPLTVKAAAYKKVDTTTAVKVTCTFHREVIVFHNASL
 FRPVFDGTGLNELCEEARALFGYTQFIEPGPPHSIWNPLECPQLPKDEMFLGVVTE
 GFKERLWRGCLVPAVFQTOQVQIAGRQAFKVPPLYDEDLFAPHGHRMPRFYHKDV SAYL
 YDSLFTSIAQALRLKDVTAVIDHATEKQFMQDHYKIAKIVQAKQFSTTLPKTTDGSSHM
 IVDSVVAELALS YGCMFLECPQDACELLNYDSWPIFDGCDSPPEARVNALERWSAEQAV
 HVAGQLFAANSVLYLTKVQKQAPRGQKGDVNVNSFFLQHGGLGFLNEATIKENGSEAF
 KGVPSNALDGSSFTPYHLAYAASFSPHLLAKLCYMQFLQHHKSSTNQAFNMVHYVGT
 AANSEMCTLCHGNTPATCLNTLFYRLKDRFPAVTTPORRDPYVVTGTAGTFNDLEILG
 NFASFRDREEDGNPADEHPKYTYWQLCQTVTEKLSAIGITEDHDNHVNLTNIQSFLR
 VFKGIDSIVDGEVMKFVNSMIKNNFNFRHVKSVHHILQFC CNVYWQAPCAVFLNLYY
 KSLWIIQDICLPYCMIEYQDNPA MGILPSEWLKMHFQTLWTFKAACLDRGVLTGCE
 LKIVHRDMFCDFD TDAGSNGLMAPFKMQVRIARAMMVVPKSIKIKNRIIFSNTAGSE
 AVQSGFVKPTGTRDTYV VAGPYMKFLNSLHRLFPDTKTAALYLWHKISQTNKTPVLK
 DVPDDELAELVSYVKTNSLAFEETNVLDVVPDSLMSYARIKLN GAILRACGQIQFYAT
 TLHCLTPVLQ TIDAEYPHVLGSAAIATPVAYLA EIRGRTALT VQTARQPVAATGRL
 RPVITVPMVVKYTG VNGNMMNFHCGNLGYFAGRGVDRNLWPES SPFKKTGVSAMLRK
 RHVMMTPIIDRLIKRAAGQTISTFEAESVKRSVQALLEDKDNPNLLKS VILELIRHLG
 KGCQDLSS EDVQYYLGDYCMILTDEVLF TLDNIAQSGVPWTIEDAGALIEDRQDADDLQ
 FVDSDDIATASCQPPEEQLPTPSAGALLAGKKRKINALLSDDL"

SEQ ID NO 10 CDS 9468..11528
 /note="transport protein; ORF 7; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 7"
 SEQ ID NO 11 /translation="MARELAALYAQLSALAVDLSLVIFADPRSIDGARILKTKTQIEN
 LNRDLLPLLREQNSVETSSLSLEVEHLAKNIEDKLGELERSLRQRYSSREHFETLHLR
 PECHYHSTVTFQFYGGGLIDVNMCLINDVELLCKRLG SVFYCIGANEALSGLN RVLT
 LSTLRGISPIPHPDLYVTSVPCVQCLREIELVPNQGSLLAVLADRHCDHLCKKVRAE
 PIHGLFETELSQLGLKVTKRSDATQHGVRSADQLRESSLA AIQDHNIFKRVSASIME
 LSNLIYWNAGQTGLQTGTENECSQMARLLTHEADMHEHRLITPKLSATHFYDCFRPD
 PIESLFCGGLFNSIDDTINALSRDCSVTFFQQANYTNVMRKQNELFTRLNSILRQGS
 GSQKPATPSEPRTTTVAATAASDV IKAQYRKEQYMKKVARDGFKKLT ECLQTQSAVL
 ANALCMRVWGGVAYGEASELVNHFLRRRFVALPWEARCRSDQILFENSKYIKNSLYS
 QRLSREHVEIITLQFYGLITGPLTRQSDLFPGPANVALAQCFEAGMLPHHKMLVSEM
 IWPQIQPKDWIDQTFNRFYQLPEGDLNAVQKSAWCFIRELVLSVALYNRTWEKTLRIF
 SLAREKLSISNLDVKGLTSGLYLTYEQDAPLV LISQNTGWIFKDLYALLYHHLQLSDG
 HDDN"

SEQ ID NO 12 CDS 11515..14004
 /note="glycoprotein B; ORF 8; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 8"
 SEQ ID NO 13 /translation="MMITNRTRLLRAWV VIIAIGTAVGENVTTPKGATTTAKPTPGP
 STPTPENPPRAEAFKFRVCSASATGELFRFNLEKTCPGTEDKTHQEGILMVFKKNIV

PHIFKVRRYRKVATSVTVYRGWTETAVTGKQEVIRPVPQYEINHMDTTYQCFSSMRVN
 VNGIVNTYTDRTFTNQTVFLQPVGLTDNIQRYFSQPVLTYTPGWFPGIYRVRTTVNC
 EIVDMIARSAEPYSYFVTALGDTVEVSPFCHNDSTCSVAEKTENGLGARVLNTNYTIVD
 FATRQPTTETRVFADSGEYTVSWKAEDPKSAVCALTLWKTFPRAIQTTHEASYHFVAN
 DVTATFTSPLSQVTNFTGTYPCLNDVIQKTLNATIKKLSDDHATNGSEQYYETEGGLF
 LLWQPLTPLSLADEMRELNGTTPAPPTTTSTANRVRRSVGTNEQATDDLAAPQLQFAY
 DKLRASINKVLEELSRAWCREQVRDITYMWYELSKINPTSVMTAIYGRPVSASFVGDAL
 SVTDCVAVDQASVSIHKSRLTSTPGICYSRPPVTFRFLNSTTLFKGQLGPRNEIILTD
 NQVEACKETCEHYFIASNVYTYKYDYVFKKINTSEISTLGTFIALNLSFIENIDFRV
 IELYSRAEKKLSGVSFVFIETMFREYNYTQRLAGLREDLNDTIDLNRDLRLDLSEIV
 ADLGDVGRVTVNVASSVITLFGSIVSGFINFIKSPFGGMLMILVIVAVVLIVFALNRR
 TNAIAQAPIRMIYDPIDKMQPSGGKVDQEQIKNILAGMHQLQQEERRRLDEQQRSAPS
 LFRRASDGLKRRFRGYKPLENEEAQEYEMSK"

SEQ ID NO 14 CDS 14122..17166
 /note="DNA polymerase; ORF 9; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 9"
 SEQ ID NO 15 /translation="MDFFNPYLGPGRPRPHSHRGTDAPAPAGAGAVQPPPDVCRLIPA
 CLRTPGAGGMIPVTIPFPPTYFENGARGDVLLANERSMWTARDRKPVPADPDQDSITF
 HAYDVVETTYAADRCAEVPSRFQTDIIPSGTVLKLGRTEGTSVCNVFRQOVFYFA
 KVPAGINVTHILQQALKNTAGRAACGFSTRRVNKRILKTYDVAEHPVTEITLSSGSML
 STLSDRLVACGCEVFESNVDAVRRFVLDHGFSTFGWYSCARATPRLAARDARTALEFD
 CSWEDLSVQADRSDWPPYRIVAFDIECTGEAGFPCATRDGDAVIQISCVFYTTREGAP
 NPPNILFSVGTCDPIPDTDVLEFPSEYDMLVSFFAMIRDFEVDFTGYNISNFDLPYL
 ITRASQVYNLRLNEYTKIKTGSIFEVHEPRGGGGGFMRSVSKIKIAGIVPIDMYQVCR
 EKLSDYKLDTVARQCLGGKKEDVSYKDIPLFRSGPGGRKAVGSYCVMDSVLVM DL
 LKMFMIHVEISEIAKLAKIQARRVLTGQQLRVFSCLEAAARENFILPVPTPEGQGG
 YQGATVINPIPGFYDEPVLVDFASLYPSIIQAHNLCYSTMIHGRDLHLHPNLTDDY
 ETFVLSGGPVHFVKKHKRESLLGRLLTVWLEKRRAIRRTLAACDDPSLKTILDKQQLA
 IKVTCNAVYGTGVASGLLPCINIAETVTLRGRMTLEMSKSYVEALTTEDLRTRLGRE
 VTARHGARFRVYGDTSDFIACDGYSAEAVSAFCDDLAARITADLFPPPIKLEAEKT
 FKCLLLLTCKRYIGVLLNDKMMKGVDLIRKTACKFVQERCRAILDVLHDPEVKAAA
 RLLCKRPPHAVYEEGLPAGFIKIVEVLNASYLDLRNSVVPFIEQLTFSTELSRPVC DYK
 TTNLPHLAVYQKLASRCEELPQVHDRIPIYVFDAPGSLKSDLAEHDPDYVRQHQP VAV
 DLYFDKLVHGAANILQCLFGNNADTTVAILYNFLNVPYKLF S"
 SEQ ID NO 16 CDS 17261..18511
 /note="unknown; ORF 10; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 10"
 SEQ ID NO 17 /translation="MLVNELSVVLGDWEVTFHGRGFSFVNLTQLTFKGHGGYARVRL
 PFSLDQLLHQHFAGFLVTRLKELPPFSDCVALIAPLDSGGDADAARVAPGFVLDSSRP
 LTVWVNASGRHTIRFCLLFLKPIDLERAVTYVFGENG GARSEGTPKPTCATESLPGGP
 LRVSGEASQTSPhSFVAYFPTANSVACL SLLRLQVRPFSDDAHRDARISPKYVTF SN
 SGGNVCKASVHTLSPSRCKTAQMEIIYAPGDPNAEIVLGQSGPVLPHTTGGRVLGVYA
 DAEKTIQPGSSAEVRVQLIFQOGAAARGDLAFLVTGVAPEPLFVVTPALLLSGCTTHL
 RLFNPNGTPTTIKRD TLVAAAAPCPVVR LSSADDAPRDLVASPD TGALSINAFTIPVG
 FPGVVS AECHVSLRDNGVHERMNH"
 SEQ ID NO 18 CDS 18520..19749
 /note="unknown; ORF 11; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 11"
 SEQ ID NO 19 /translation="MGTPVRFFRGEWQTSSLVDNGTPRYSSLVWAATIHDGYLTLVNR
 SELCVTERS PCLPACPSIGRLVGKRFPGFAFASATLGDRGTRTVFYAFGHRDNPLDIV
 PAVVERADRELVL RVHAPQTTTRVSRYGLKV FVAIVTVVRPPGVFLHFPQDRVP IALTD
 ACSQEGSRLTSEEPWIKIQGFPVLSDETAHPFLLTQKTKPFTERKFCRLIMDNDQRS
 VNTVYLGKQHV RVTVTRPPETIVTDGPVTATLSLTGNAPIAFRHNPFELPWSSTTAI
 FTPVVYVGLTVCIPPNC SKFVRYGNTYVSAFN RKLTAIISNHAHNGGFRIQDCEWPPN

WO 00/28040

PCT/US99/26260

REIEILVTNVSQAPVYISTGTQLGQAI FVFAPRFGGPAKLRQLLGHRSRALPGGVT
VDSQKLCRFETMYLFST"

SEQ ID NO 20 CDS complement (19921..20544)
/note="R2; similar to IL-6"

SEQ ID NO 21 /translation="MFPVWFVLFYLS CWAASPTLAPPPTAAGINVLPQWAGNRASLDR
TRGRLSEVGLNIQRWVYLCHHSTLCRVREYPRIMSFVHFPI LMSNVECQRREFRGAE
CMNAMVRGLRAYESYLTRLRMLLDDAPGDADAAAIGSAVTVVL SALS LIEELPVNNK
IGGAESNEKTVRALGGQSPRDVVL SAFRILEY LQMFLRDGRRAIAMM"

SEQ ID NO 22 CDS complement (20777..21778)
/note="thymidylate synthase; ORF 70; similar to Kaposi's
sarcoma-associated herpesvirus ORF 70"

SEQ ID NO 23 /translation="MIVLVHLGICYVKKIIPVCVAGIAAARLRVFS APEGAAAVRCAC
RGDHGELQYLAHLDLIIKHGVQREDRTGVGTRSVFGLQARYNLRDEFPLLTTRKRVFWR
GVVEELLWFIRGSTDSTELSRRGVKIWDAGSRAFLAAQGFGRREGDLGPVYGFQWR
HFGAEYRGADANYEGQGV DQLRYVVDLINRRPHDRRIVMC AWPADLARMALPPCHVL
CQFYVARGELSCQLYQRSADMGLGV PFNIASYALLTYLIAHVTGLTPGDFVHTLGDAH
VYNNHVDPLLLQLRRTPRPFPR LKILRKVARLEDFTRADLSLEGYDPHPHIEMEMAV"

SEQ ID NO 24 CDS complement (22245..22592)
/note="R3; similar to Kaposi's sarcoma-associated
herpesvirus K4 viral MIP"

SEQ ID NO 25 /translation="MRGLFVCVFFAVFACVVDYAFPMGSM SGPAPELCCLGYVTHLPP
PGLVVSYSHTSSQCSVDAVILNTRRGKLCANPGDDAVK KLLQAVDKRPKKGRTRRS
LIDDSEEGLGSGI"

SEQ ID NO 26 CDS 26846..27409
/note="Bcl-2 homolog; ORF 16; similar to Kaposi's
sarcoma-associated herpesvirus ORF 16"

SEQ ID NO 27 /translation="MAAVQGPPPPPEEENENSLPVDVYAIEGIFLYCGLGQAEYLHHP
VFSPIKEFISAF LKDSARLYERLLRHTDYRSLRGLNAIGQGM LQINTDGRHNWGRALA
VLGLGAYVVDKVKDDERLLTFAIAVL PVYAYEALESQWFRSHGEWEGLRNYCERILRH
RRNARRHMCYGVAAAGLLALVALFAIRR"

SEQ ID NO 28 CDS complement (27515..29125)
/note="capsid protein; ORF 17; similar to Kaposi's
sarcoma-associated herpesvirus ORF 17"

SEQ ID NO 29 /translation="MTPVYVGGYVDVVS LPKIEKELYLEPSIVATLLPYTDPLPINIE
HVPEAHVGHTIGLFQVTHGIFCLGKLTSHD FLALASRLAGDSRAAQIQLNPMRPDPLL
EMLHTWLPELSLSSLHPEELQDPNHPPAFQHVS L CALGRRRGSIAVYGPDP TWWVSKF
DSL TREEAGKITVNC LDCERQVTPPEFAAPLETLMAKAIDAGFIRDR TDLLKTDKGV
ARVARSTYLKASQFPCAQHCGNRDTRTMSALPEDNITIPKSTFLTMVQSSLDNMRNQG
HRTYVSAPPSMPATAAYPSWIPPELTVPSYAPPVAPFPFQSAFAPQPSPYAATYYS
PTYGYAPAPSRHQKRKRDVELSDEPVFPGE EVG I HKDVMALSKNILD IQADLRDLKRA
ASQTSGAQDADQRPQPPPVQFSWPQTYASAPYLAYQPQWYSGTDTHLHAPQPYQSAQG
IQQTQPPPPQPASHHAGLATQPATPAPAAQESVMSNAIP SASAPRAGACPLDPECGQ
SARAPVEASAQPAPVSQIQKMFCEELLK"

SEQ ID NO 30 CDS 28998..29897
/note="unknown; ORF 18; similar to Kaposi's
sarcoma-associated herpesvirus ORF 18"

SEQ ID NO 31 /translation="MFIGRGSVYGSRVATIEGSKYSSFSIFGR LTTSTYPPTYTGVM L
GRCLREP KEMSAGLRGLMWRVIRCENLNTFLPGELRFLHLVLC EMYNYGLNVYLLKEA
IANTGTRDDIVLGRKVPVEFWKIVYDGLKEMGVSDATLLSETKRGALWLYFN GRPCLL
KGLGDYVFCQLGLSHSVRVVPENLTDGNYLYNLG SVIPCRLLVALSYCLAFWGHADHE
PWVRLFAGKIFILYLIISGHIMPRKSILEQVGTSGYGGFVEAVCRDVRVAVHGIPAWDF
ASAAPALTSQQT DYLFAFNNSV"

WO 00/28040

PCT/US99/26260

SEQ ID NO 32 CDS complement (29905..31548)
 /note="tegument protein; ORF 19; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 19"
 SEQ ID NO 33 /translation="MRTSEKCCMRYPKPARQITATFWAPHPNNVLFHKKPSLIEERR
 NAFVMRNQQLALRVHTLRKNLLRLELDNVLQTHQRETEVVMRDLETIQNMVGDLSRPG
 RETANAQTSLNPPQPKIAPQTHGDAFVVTIAPGDPGFTVNQDLRELLPSLYMNQNWQL
 PQYGPWYSSLTDNAMQRRVFPRLRGTTFNQNSTSLKLSMAVISTAASITQDFYADVR
 NVSDTQAALCLLNGYYCHRTGTPLPPTRNGLWDNLGTLATLVSHLKQNTKGLGFET
 YSNPRORASLAPLNKETKYNADFFTNHVIYATLAQSGLLPKSKNPGTGQPPGPDVYI
 LATTLFSEDVPPFQAYQWNLRAGLSALGCLVLVYVLELAQITPRSPHRRNLASLLG
 GRFSKVEDPSGSKQYLKKGQFLDFLTENYISPILSRAPDAPTSFLFPGAYLAALAEAKA
 ISHLKHTRPFVNLGSRFNEIFDILNQKLTFRDAGSLIQAQTSRLTAEEGLAILSH
 PSPPGLAHEIMKSQFGVYDDYDRVYFLVLGYLPVATSVV"
 SEQ ID NO 34 CDS complement (31043..32095)
 /note="unknown; ORF 20; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 20"
 SEQ ID NO 35 /translation="MAFANQCKHVATLEALPASRKRACTRAHLAVYRRLIKHRSLLDI
 LKFLSIRPTLRATKNVKFRIFFEVSLGRRRIADCVLTNSEHQKTCYVIELKTCLSAAV
 FPGNAIKISQRWQGLHQLTDSVAYIGRAAPRGHENWSVRPWWLLFKNQKTLKTIHTESS
 AFPPTFINTTSAALNGFFSQWEDAHVRKMLYEIPKTSAAANYRNLFGPPSKQRSVYSQ
 TISDRRKKKRVCDAKSTAGAKGSHAAKPPAPARTRQRAANAPTGNRSGHARPRNNSKH
 GRGSAVPGQGNRQCPNITKPATQNRPADTWRRVRCHNSPRRPGIHGKPGSPSGAPAKP
 VHEPKPMAATIRAVVQ"
 SEQ ID NO 36 CDS 32094..33767
 /note="thymidine kinase; ORF 21; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 21"
 SEQ ID NO 37 /translation="MAEGGSGFGDELVRQMRDRKPRWDESSDDTDDVDTESTDLEYDD
 VFPVVDTHGLMSPGSQNYDVPTSPSGTPWELLHPDALYAHPRCPPKRAVVPGGGARPK
 VSAFSARLQYVGRQSFQDRETRQLTGAQFSSESEHEYAEIPERTTTTPVESGDKRNFT
 SGRRGAISGPSSTKPSHGAGLTRKTKTSLSVSLKNLLRIKDDDAKVDVPRPVTVPVHL
 MQPHPMTEYRNAFLIYLEGVMGVGKTTLLNSMTGMVPOENVLSCEPEMKFWTCVYSNC
 LKEQRSIVKQGTGHLITSARVYACQSKFALPFRATAAGIGRNLQPWLVGNGSTKPN
 WIVFDRHLLSATVVFPLVHVKNRLTPDHLFOILSLFSAHDGDVVLLTLNSSEAHRR
 IQSRGRKEEKGITQNYLRQVAVAYHAFVCTWVMMQYLTPEQMVLQCVQTVSIEDICNM
 NSRLTHRFLTTLKLHEQSMIPMAEMLVSVKEHVTLMVCLGLFKELRKLQILIVDAG
 EHLDDACGLWGNIIYGQVMSNEAIKPRAVNWPALESYIQTTLTKLENGAY"
 SEQ ID NO 38 CDS 33754..35868
 /note="glycoprotein H; ORF 22; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 22"
 SEQ ID NO 39 /translation="MARISFIFFTIIRCSVTDKYVYDEKSNVELEFNGTIYQINWRN
 VSKELTSIVMEDAWYDSLLLEPLSVTLEKRKSLLRSSIVNVHNNDYTFCKSSSDHVIN
 LTVDNFYSSLPFGFTGNFNVMTHALTQGVLLTKRELFTNSTNIMDLFYAEKINAEMFKI
 TFDYSNVIISGIITENWILSVTNSSVKSNNMQCVALLFGVPSTFPALKGYVSYRDLLV
 VKNSNYALGVIAPKSYNTLDLAFLPKNFTFMFVSVIDSPLNAIDYLGKLLAEAKGA
 CQNPSNENDILSFFFEVTAVNFLFIKNLQKQQLVNVGCVVRHVAALSLMHLRLCYP
 TFKLYELNLETLSHIAESQVFNLPANSMLSLSVNDQEVVFSMFKIVYNTPKVGGKILN
 EIVYITNYMYTKYSENYQLTNTFRNVMMNYEVLTTIKLVNTDSSVFYPYILFTSMCN
 NVEISYMINQIAKPDITIFRVFSPCFLSLRFDLDENKLRSAPQTSKRTGSELAQGA
 SGFWRLHAFHATRINEFSVINCTRLAWQVTALMPLTNITYVISSVRPDHARVYEV
 EVFLNSAMFVSAVYPNCSTHFTPPGTALHIPILYNFSAPRIGPLCDSIVLSYDENQGL
 QTMMYVSNPTVQANLFSPPSPFFDNDNFHILHVLWLMNNGTVVEIRGLYRRHALSAIAL
 VFAFIGTMSALYFLFKLFSILA"

WO 00/28040

PCT/US99/26260

SEQ ID NO 40 CDS complement (35865..37073)
 /note="unknown; ORF 23; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 23"
 SEQ ID NO 41 /translation="MIKISDLKARLVGGAVQLSNGEYVCHVVYSSALAAMVGLPGPAV
 PLPLLFKKFSTIYSNMMPLYAPKRPELSMLRIMVSPHPYALNSCLCVGTDEGERGVSL
 FRDPVIRSSDFEDTPITVNSKLVIASNSLFLHCRPFSVPATVKTPPVTLTNNKQITIN
 ELANTTQEYDPNAPPTLCSALPPDNKKLRSILKQPPATSESNVQSDCLLADIFFAMGS
 RQPQIGESPITAFNTVTIMQRANNSIMFLPNLKLKPIQHLFLKHVLLQRLGLENILFH
 FKMLYANTCKAAGPYQREYFESMLSRVKQRLEDMVFCLSIESHDFQKDFRVLSRAPQ
 RLLTATDKYFLMFPQNRELAIQVGAEVIESICDGTPLSEVLANLSPRVTIQKETGNN
 LLKFYALLTV"

SEQ ID NO 42 CDS complement (37123..39321)
 /note="unknown; ORF 24; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 24"
 SEQ ID NO 43 /translation="MLLQGPVLLPACPATVAANAPSPANSDFKTQLAIFCCLATNNEI
 LENVSLEALDRAMQTETTFYACRALRRLLVLGEGLYPFIHRQGGIVGKTGNEYAGPGLI
 IDDAIGCTFSHIETHFTLPTVFTYELSDTVLVQSDERILRSLYCSPLMVCVNYQSMF
 RILCRYLQIWEFEECFAAFTRTLPEHLIGTCYQNYFKLLEPFKILTLCRPPPCAKLH
 LNYLKFNILGFTSDWISHPELHRVQTVIIHNIESNPVLLKNLSKQNKQDIKVASELI
 IDYQNIQVNSLDVNLQVKINKKDPGKKPYKVVVVTPKSTYYLTFPPEVPIFRVAMCMS
 VAEHVCHSCDRLYPNTTEFLGPGETPRVLEAMFSRIQYAPKDRDYNFIFNADQNPDRYE
 QARHDHQTEPLPDMFDPVKHMSLHNFKISVFNTNMVINTKITCWSLAGTFESIIDIPR
 LTNNFVMKKFSVKEPSFTVSFVSDNLCNGAAINVNISGMDLHFMFAMGNLRCFLPVK
 HIFPVSIAWNSTLDLHLENQYIVRRGRDVFWTNTNPSVSSKDGCVNSWFKAATA
 TISKIYGRPLLKKLSDELNPILSVPYARIDQVKNTIFTTLETRNKAQIQTLHKRFIEC
 LIVECCSFLRLDLGALNRAARLGTDFDSKRIISHTKSKHECAILGYKKCNLIPKIYVRS
 KKIRLDELGRNANFMSFIATTGHAFSNLKPQVIRHTIRRLGLHWRHKAKI"

SEQ ID NO 44 CDS 39323..43459
 /note="major capsid protein; ORF 25; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 25"
 SEQ ID NO 45 /translation="MEAALEVRPPFYMATEANLLRQMKESAASGLFKSFQLLLKGDKAR
 EGGVQFEGLLGVYTNVIOFVKFLETSLAVACVNTFEKDLKRMTDGKIQFKVSVPTIAY
 GDGRPTKQKQYIIMKACNKHIGAEIELSTDDIELLFIDRETPLDYTEYAGAVKITIT
 ASLQFGVDALERGLVDTVLNVKLRSAPPMFILKTLSDPVYTERGLKKAVKSDMVSMFK
 SYLMDNSFFLDKSDIAVKGKQYVLSVLSMDMVGAVCHETVFKGTNTYLSASGEPIAGVM
 ETTENVMRKLLNMLGQVDGGMSPASYANYVVRGENLVTAVTYGRVMRTFDQFMKRIV
 DRPNAQPSVDDDRDAVADGQDSLAKTPIAAAVIQIGDKLVALESLOQMYNETQFPFPL
 NRRMHYTYFFPIGLHMPRPQYSTSATIKGVEHPAEQSVETWIVNKNVLLSFNYQNAL
 KSICHPRMHNPMPCGQALGQAFDPGHVHRYGQRSEHPNMNLYGLVYNYQGNVAH
 VPDVALKATMTTDELLHPTSHETLRLEVHPMFDFVHQPGAQAAAYRATHRTMVGNIP
 QPLAPNEFQNSRGLQFDRAAAVAHVLDQSTMEIIQDTAFDTSYPLLVCYVIECLIHGQE
 DKFLINSPLIALTIETYWNNAGKLAFINSFPMLRFICVHLNGSISKDVYAHYRKVFG
 ELVVLLQALSKEIAGHEVVGRRPASELINCLQDPNLLPPFAYNDVFTNLLRQSSRHPMV
 LIGDEGYETENDRDTYINVRGKMEDLVGDMVNIYETRNNADHDGRHVLVDVGPFNENEQ
 HMAVLEKLFYVVLPACTNGHVCGMGVDFDNVALALTYNGPVFADVVPDDEILDHLE
 NGTLREMLEASDIHPTVDMIRTLCTSF LTCPFVTQASRVVVTQORDPAQLLTTHDDGRYV
 SQTVLVNGFAAFIAIDRSRDVAETMFYPVPFTKLYSDPLVAATLHPLVANYVTRLPAQ
 RVPVAFNVPPALMAEYEEWHKSPMLAYANTCPMTPTSLSTLASMHKLSAPGFICHAK
 HKIHPGFAMTAVRTDEVLAENLLFSARASTSMFLGQPSVMRREVRAVATFEVNHELA
 SLDMALGYSSTITPAHVAAITSDMGVHCQDMFLMFPGDSYQDRTLNDLVYKQKAGCQRF
 GGPGQIREPVAYVAGVPHSDNIPGLSHGQLATCEIVLTPVTADVTYFQTPNSPRGRAS
 CVISCDAYNNESAERLLFDHSIPDSAYEYRTTVNPWASQQGSLGDVLYNSTSRQVAVP
 GMYSPCRQFFHKDAILRNNRGLNTLVTEYAARLTGTPATSATDLQYVVVNGTDVFLEQ
 PCQFLQEAFTPTLAASHRSLLDEYMSNKLTHAPVHMGHYMIEEVAPMKRLLKIGNKVAY

WO 00/28040

PCT/US99/26260

SEQ ID NO 46 CDS 43491..44408
/note="capsid protein; ORF 26; similar to Kaposi's sarcoma-associated herpesvirus ORF 26"

SEQ ID NO 47 /translation="MALDKSIVSVTSRLFADEIANLQSKIGCILPLRDAHRLQNIQA
LGLGNLCSRDSAVDFIQAYHYLDKCTLAVLEEVEGPNLRLTRIDPMDNYQIKNAYQPA
FHWDNYSSELVVIPPVFGKRDATVSLESNGFDVVFPAVVPEPLAQTVLQKLLLYNIYYR
VAETTPTDVNLA EVTLYTTNITYMGRNYALDVPVGSSSAMRMLDDLSIYLCVLSALI
PRGCVRLTSLVRHNKHELVEIFEGVVPPEVQALDLNNVSVADDITRMGALITYLRSL
SSIFNLGRRFHVYAFSSDTNTASCWCAYN"

SEQ ID NO 48 CDS 44433..45242
/note="unknown; ORF 27; similar to Kaposi's sarcoma-associated herpesvirus ORF 27"

SEQ ID NO 49 /translation="MSIPKIMTVSRDNEGTVCCEVAVDNGRHRAMIYYPKTTNLANERA
DVVKEAFDTETPVDIVKQIVNEGLAISKKNCVRLALYLYFYLYQYVCFALLLTWQLNPY
MDPPGLVFAVNPMPGPKHVTKLPHPAIVAVGCGADAICKNCSVPDIKTELGMVYHNGSS
DSGQRAHYGLALLKAAWLVMGNVCPEPVVRQGAALLGPWNRTEWSDFKSAMAATTFCG
SRGVLWSPiHEKNLCRPTWNDVINTSVFTNESLCPNIPVVPESVIVLNGDA"

SEQ ID NO 50 CDS 45408..45683
/note="unknown; ORF 28; similar to Kaposi's sarcoma-associated herpesvirus ORF 28"

SEQ ID NO 51 /translation="MTAHTNGVLTTTGFSTSQPESVQVSPFYRVITKPPVMGLFFCVA
MCVIALVWYVMRRVCCCKGRVVADSCRDPQPAYEMLNVRLRPHGTNP"

SEQ ID NO 52 CDS complement(45733..46779)
/note="unknown; ORF 29b; similar to Kaposi's sarcoma-associated herpesvirus ORF 29b"

SEQ ID NO 53 /translation="MLQKDAKLIFISSNSSDKSTSFLNLKDAHEKMLNVVNYVCPD
HKDDFNLQD TVVACPCYRLHIPAYITIDETVRSTTNLFLEGAFSTELMGDAATSAQSM
HKIVSDSSLSQLDLCRVKSTSQDIQAMKPCPLHVIYIDPAYTNNTDASGTGIGAVIAVN
HKVIKICILLGVEHFFLRDLTGTAAYQIASCAAALIRAIIVTLHPQITHVNVAVEGNSSQ
DAGVAIATVLNEICSVPLSFLHHVDKNTLIRSPIYMLGPEKAKAFESFIYALNSGTFS
ASQTVVSHTIKLSFDPVAYLIDQIKAIRCIPLKGGHTYCAKQKTMSSDDVLVAAMAH
YMATNDKFVFKSLE"

SEQ ID NO 54 CDS 46905..47135
/note="unknown; ORF 30; similar to Kaposi's sarcoma-associated herpesvirus ORF 30"

SEQ ID NO 55 /translation="MENDTPKDKISEADFQQCAFFHRPIRDLISSGADALNHFSLSLSE
SDGHKLERIVLLLDLVGTECLSYTTIAAKNVK"

SEQ ID NO 56 CDS 47093..47746
/note="unknown; ORF 31; similar to Kaposi's sarcoma-associated herpesvirus ORF 31"

SEQ ID NO 57 /translation="MSLLYHDRCKEQMTRVNSPICRFHNVSNLQCLDCKRYHVCDG
GRNCVIVYTRENLVCDLTGNCVLDNVQDVCSYGPPERVPDAFIDPLVSHGTRECLKS
DILRYFETVGKSEAYSTVVKNQQLNGIIGRLIDATFNECLPVMSDGEGGRDLAASIY
IHIIISIYSTKTVYDNLFLKCTRNNKYDHIVKTIRAQWMMRVSTGDP SRVSATGCFT"

SEQ ID NO 58 CDS 47683..49077
/note="unknown; ORF 32; similar to Kaposi's sarcoma-associated herpesvirus ORF 32"

SEQ ID NO 59 /translation="MDAHLNRRSVAGQCDGLFHVILPRGFILANNITCGERQRRFFAH
TWFAASGRSTKTLVWGRVFQNTDPGRGDGPGSPWSGLAISLPLFTTNGKFHPFDVVI

WO 00/28040

PCT/US99/26260

LKADTPDSGSSWTVKFLYMSLIAAYRNAMRGLKDKVSQCTDAAVDGEVHPLTVLKEAL
 VSPDTATRPVSACNPLQMLTGLLQSRVRDDYVTHHRALERPGNVRGQVIAPTRTEMPN
 GSPSRVRLGFRPPKQANYPKTWAQARHVFSSRAYVCVYDNEELDTKWQRQDPRPLPL
 DWSDPVAYLLEGDLFLGAKQNAFVDSIEKTCRCQNYTIKQFFPVLINRDNETVDLIKE
 HFIEACFVIRNQVSERSAWVKAALFRNDSNTYWKDVLGLWEHGPHKLGTAIKLP TSEP
 CNADVNWSWLLCDEDITRSISGQSTVCLVVSPTLTAWLVLPGGFVIKGRYDLSSSEDLN
 FVASRYGHPASSHS"

SEQ ID NO 60	CDS	49049..50059
		/note="unknown; ORF 33; similar to Kaposi's sarcoma-associated herpesvirus ORF 33"
SEQ ID NO 61		/translation="MATQRHILKSFLNKECIWLRHPGTSAFVRVYTATTAHSAVFDP PVTSENAmslnflnmivimkpkfegpcvtvymngdildfcatesvaIRDVPGRADLC LIRFGTlsnaprsvpiPGPLNPHPRETVPGLTkQEIiYTSQTVPrgQIPDAIKGKEFH QINPFLWFDGGAFWQLFLSVDFMLLCPALDTPVSLARIVGLLTQCDKSTCKICTGAHV HVNPyRGYTPPDSQGTSPSCPLISCGARRAADVLVTGHVNLGLLFDPKASPKVTKL RLKRNP RPVP IEDAMSGVTAEGTEVQPTSLPWALIRLPDLASRVMLYGCQNLKSI CLR SY"
SEQ ID NO 62	CDS	complement(49977..50960)
		/note="unknown; ORF 29a; similar to Kaposi's sarcoma-associated herpesvirus ORF 29a"
SEQ ID NO 63		/translation="MLLTSYRERLQNNLRVVTDGGCENWFRQPPViiSGNDKTERMAH PCLGVIHAVNAYSSVLDYLTQYRRVQEPMPAPTLGKPRISshATLPrLTeELtNYLK QTCCRVQMANAKDQYMEYQSAQRTHeAFLECPVYAE LRQFLANLSSFLNGSYVPGVCC LEFFQQQLIMHTFYFIASIKAPEKTHQLFATFKQHFGLFETDDVLQTFKQKASVFVI PRRHGKTWIVVAIIISVLLSSVENVHVGYVAHQKHVANAVFSEVIATLSRWFPakNLNI KKENGtIVYASpGRRPSSLMCATCFNKNVSRcFLSSGSRIASRDWLNpAGE"
SEQ ID NO 64	CDS	50959..51942
		/note="unknown; ORF 34; similar to Kaposi's sarcoma-associated herpesvirus ORF 34"
SEQ ID NO 65		/translation="MFPSSFLNNGHPETERRFVKGVLALDLCDNTPGQFKLVETPLN SFLLVSNVLPESRPVRDCPQEGFDfEHihLPKLTRMQRVLGryCDHVNDDTCVNVK ASSNSQGALFYLPYGQDEWNWALTlRKDKLVKMAVEGLSNPTTWKGLEPVDPLPLIW LLFYGSRSFCREPECLYERNFGMKGPILLPPHMYAPQKDVMTFVHHVIKYVKFLYVNA GGGLETEPSPPFASRLRAAIARLGDVEADDAyLSAKCMLCHLYKQNDTISIhETHVG GVIALGGDGARYITSSVRAQRCTSRGDFVLIPLYNIEGLVSMIREHGLGSS"
SEQ ID NO 66	CDS	51923..52372
		/note="unknown; ORF 35; similar to Kaposi's sarcoma-associated herpesvirus ORF 35"
SEQ ID NO 67		/translation="MASAAAKMLIKSELESEINKKLSISVDFDRFGADSAVFNAQYKG TRESLRSYNSLKKKDDLATVVGTLTSLREKQSELGLLKGFNRKKIEFDADA VAVRD LKDELYGELEILGTLDNESVPVEEESPkDDIIRWKLERLPRVCPKSP"
SEQ ID NO 68	CDS	52278..53585
		/note="kinase; ORF 36; similar to Kaposi's sarcoma-associated herpesvirus ORF 36"
SEQ ID NO 69		/translation="MNLFPWKKSPPRTTLGGNWSVCPECAPKALDPIPKVQTDVDRt ASSHITVIKTRKTIAQLKIPNNWQGCSHQATDWTAVLGRGSYGvVRSMSLGRCVKHFG SRREFFYECIFNDIVRACREKHPLNRGGDRILCFLEPCVPCRALIFPQLTGNLLNADL KHVNPERLAVEFSELREGVSFLNNICGIVHCDISPENILIKGELTTAYGRLMIGDLGS ASLHTGTPWTGVMVTSKLGfVQHTYHfKAPARFICKHIYRPSCLLYRCLLSCAGGPQA HMLNQPFQITPQLGLTIDISSLGYSLLACLEKYLQPADPFPQOGALADASSESaHPLF YLRcMVPRVIAEIfSVAWDVPLDLGIDSSGHAPAIPLREAYRRFFANQCSLYRAQYK EDALENASSRLCNSKLKLVLQKLLVRDYfSHCGNCGDHGFFLR"

WO 00/28040

PCT/US99/26260

SEQ ID NO 70 CDS 53566..55008
 /note="alkaline exonuclease; ORF 37; similar to Kaposi's sarcoma-associated herpesvirus ORF 37"

SEQ ID NO 71 /translation="MDFFSDEPMVQEMALLDIDEQORLLSKMSLANFLKHERVRAFFS
 DNKKEISMPAIRFVYNFYLFQVGVDFIGNTDVYDFYVTCVFRGRLTRLSEVYDACLN
 MHPHDRHHVICALIEQVTRGQNINPLWDALRDGISSSKFHWAIKQONSSKKIFNPWPI
 VNNHFVAGPLAFGLRCEEVVKILATLLHPGEAHCENYGFQMSPNLGVFGVSLDFGIN
 VRSDPKDGLFHPDCKIYEIKCRFKYTFSKMECDPIYAAAYAKLYQKPSMOTLKGFlys
 ISKPAIEFVGEDRLPSESDYLVAYDKWEVCPRKRRRLTAVHHLVKKCMIHNSTAPSD
 VYILSDPQETGGQINIKAHLSANLFINVRHPYQVLLQSLVVQEYISLSKGTKNLGT
 QKNFIATGFFRKRQFQDPSCCTIGEFAPLDPHVEIPTLLIVTPVYFSPVAKHQLVKQA
 TEFWAASAREAFPELPWDLSSLCANAPPTP"

SEQ ID NO 72 CDS 54963..55172
 /note="unknown; ORF 38; similar to Kaposi's sarcoma-associated herpesvirus ORF 38"

SEQ ID NO 73 /translation="MGFILSVCKRPTNTVDVKGEPIDVSKFDPPIIGESIVLLTADG
 TAPAALYKPKTKPSKHKNKLSDFV"

SEQ ID NO 74 CDS complement (55255..56391)
 /note="glycoprotein M; ORF 39; similar to Kaposi's sarcoma-associated herpesvirus ORF 39"

SEQ ID NO 75 /translation="MKISRSDSFILSSWVKLLVILGLMFIMSAVVPLTATFPGLGFP
 YFNTLVNYSALNLTVRSSAKHLTPTLFLFLEAPFMFVYISWAFVLDGYLLCYAWAILAI
 FKAKRVHATTMTSLQTVIWLIGSHSVVFMSSILRLWTIQLFIHVLVSYKHILLASFVYCI
 HFCLSFTHVQAMISCNSATWSLRVLEQQIPENSLDLTLLRYGKPIGANLYLSLIAMEM
 LVFSLGTMMAGNSFYMLVSDIVFGSINLFFVLTIAWYINTEFLVKYLKHQIGFYVG
 VFVSYLILLPLPVVRYDKVFISASLHKVIAVNISMIPITCILAILRIIRNDWKWCAKS
 PEYAPLPQGPKEKTTKVKYSPELNALYETEEDVSDYEDAYPKYI"

SEQ ID NO 76 CDS 56526..57932
 /note="helicase/primase; ORF 40; similar to Kaposi's sarcoma-associated herpesvirus ORF 40"

SEQ ID NO 77 /translation="MNAREVALTGHVLHISLHSTHEREKLIWQVHLLVCQCGIQGD
 AAYLFVTETLSNTDWGNIPAINRHAPSINEHGRNYMQWELRTRLRNPIIQLLSRQPGA
 VNVRVSEPNMVI VGCERALDHSCSVRVGTGAYLHCDTTMDFSLDSVVSPTREFWFSEMF
 SHCLVSNIEVYLKTTGGLYRASSATQCRKRAKD GALGILDIFNCESREIQVAGQKYT
 LSIATATFHVWVDEACMWNGALAEFFRALHNKLF GDREGVAPTLYVCPGATPEGTP
 FPPYFSAPPHLPLVFGRRRLDVTAVQELPKAQIAVHWPPFKDSILGDQLLIPGISPK
 KPGTVPVVRWPLWVEDVNLSCETTESVARIVDPHSIVIIFSSLLCQHLKCHRAVFN
 ELEYIATICSSDLRLFIQEEYNRLLATIFTWAAASGYTAAIDKTTVFIIKAPQLSAAV
 SGFCPSLNSCRRKQCYEG"

SEQ ID NO 78 CDS 57917..58528
 /note="helicase/primase; ORF 41; similar to Kaposi's sarcoma-associated herpesvirus ORF 41"

SEQ ID NO 79 /translation="MLRRLKITVHFLSQEQQKVTRLEAHLGLPVQETSHPPDWLKCE
 VCSASVFLKIPAGVLYAGLARDPTREAKRDSWLDCLVEGATLLLNNSVLPICALAGIL
 PTLFANRRVCVNFLLPRAWVKSAPICPPLPIDCVTPPQFVVTKRGPICWYKEWPLPVD
 VDFMYYLQEALCVFSVVSNGEGTESHADNIRQLEKFEKVLCLF"

SEQ ID NO 80 CDS complement (58525..59343)
 /note="unknown; ORF 42; similar to Kaposi's sarcoma-associated herpesvirus ORF 42"

SEQ ID NO 81 /translation="MDQILKRLMGEOHRSEAVMPETECSSRGYPYNYVPFPRMLLEVHK
 KNSICMASNTPKLCVRGRLNVPDLGVHVRTRLQSATFTGFVFACVVEHEDMIDALDIY

WO 00/28040

PCT/US99/26260

PHVFSDRVQLFKPASASVTELCCILSMLENYDKPPLSFILSALDRARYLHERYTCNDS
 AFVLYGIEVIASTLAAYHELNPPQGILRVPPPLVRFKLHKLLDENADDMKGLLKPIYLE
 SFRLTENVGEEEGHAETFNIFYCGTIFTRHLHNASVLKYFQITSLHSIPRQTLF"

SEQ ID NO 82 CDS complement (59297..61027)
 /note="capsid protein; ORF 43; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 43"
 SEQ ID NO 83 /translation="MFKMNPFGSGTCLVHPTLSISLFEILQGYAYVRGQTLHSSLR
 NPGIFGRQLFIHLYKTALGSCYDNLKDWTNFETTLKTRWRGVEHLTPFEKRSTFES
 WARTVRLTVDQLLLNTINQVLHTRTVLSYERYVDWVVALGLVPIVRRTPDGDTIARIQ
 AHCQOMRKTYASGDVTISRIVDKLAQEITSIMTDVTSIYIPDYAEVSVEFNGDKAAYL
 GTYRQKDITVEVVSRIIYNGRVAFDSPLYRLFTAIMTCHRRTAEHAKLCQLLNTAPLK
 ALVGSTCNDMYKDILARLEQSSQKTDPKRELLNLLIKLAENKTVSGITDVEDFVTDV
 SQNIVDKNKLFGTGTESTTQGLRKQVSNTVFKCLTNQINEQFDTISNLEKERDDYVKK
 IQCIETQLLQSLPEGGRPRHDINILTQNTLQALSGLRDPNTINLSECHIPKGSSVNSF
 FSQYVPPFMEMLKELTSLWEGEMFQTYNLTPVVDNQGQRTSIAYSQDTSILLGPFTY
 IIAKLTHMDLINHSLISLSLHDIADQLYVDSRSLSVYINDIGHKYCEQISQPGTDGPNT
 EASNGGAAP I"

SEQ ID NO 84 CDS 60966..63338
 /note="helicase/primase; ORF 44; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 44"
 SEQ ID NO 85 /translation="MESSVGWTKHVEPNPGFILNMTSDAKVRGVVDHVSRLSNITTSP
 PEMGWYDLAFDPAEDSGPFLPFTVYLITGTAGAGKSTSISALYQNLNCLITGATTIAA
 QNLSRRLKTFCTIFSAFGFKSRHINIAVRKAHQTGAVSIEQIQQELSKYWPVIVDI
 MKEVMAKKPNGMYGTISNANFETLSRMTGPCLWTSNIIVIDEAGTLSSYILTTVVFFY
 WFLNSWLNTPLYRQGAIVCIVGSPQTQNAFQSTYNHGTQKTEISSCENILTFMIGK
 KVVSEYVHLERNWALFINNKRCTDLQFGHLLKILEYNLPIPEVMSYVDRFVVPKSKI
 MDPLEYIGWTRLFLSHSEVKAYLTNLHTCLTLGGDTRDTKLFTCPVVCEVFVKPFEEY
 KRAVNLTNLTVEWVTKNLFKLSNYSQFVDQDMSIVATESTERSTQVTFITKFVKNSH
 VSLNGKTKKICGFGQTYFEFKRILDSELFVETHSQDRPEYVYGFLNTLLYNAMYSFH
 AYGVTRSHEKYLQDLKFAPLPAALATGRVDLQTVREELNLEDDIFYHVCSPPPPAGIT
 SLQVLVDITYCALKDVFASRIKVACRWFGGEFEKETFSFTVNMVVRDGVDFVSPSERL
 NGLLAFASTVESYKIKGYTFLPVAFGRQCGLPLSDDLKMKPSLVVQDSSGFIACLEN
 NITKLTTETMEDGSVFQVCCAGDYGVSSNLAMTIVKAQGMSLERVAVVFGSHKNVQTS
 VYVAISRAVNSNYLVMDSNPLKTLTLLREPVDNTSAKHIVRALHNPNTTIIY"

SEQ ID NO 86 CDS complement (63379..64437)
 /note="unknown; ORF 45; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 45"
 SEQ ID NO 87 /translation="MAMFLSDPSRTPPATPRMLPIPGAPRKKRTRRFLFAGSRTGLPV
 PPGYGGPPVIDMTAPEDVFDQDSPPTTPKTPDETDSHSENSDYSDVDEEPPVSSPP
 RIDPHARDGESFNQSGRLPTVITSTGATTPPSAPAPLTAFGGPRPVAVVTGQHRAPQS
 SESDSEDDFFIDYEDTDES GGEADGFS PRASPAWSGDISRSPAEGGWSSDEEPPVVA
 GSTAGQETIIISDDDEVDDRGSVETWDES DADEGTGATDVIDLCSSSDSDDDADHVT
 GGVRAACKRRASRRDCNGDDDVIVGTTQGPKRMTSTTGGGATSNPEGPGVSGRQTM
 AATPPVCGNDNYPWPWLD"

SEQ ID NO 88 CDS complement (64479..65246)
 /note="uracil DNA glucosidase; ORF 46; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 46"
 SEQ ID NO 89 /translation="MEGWLKTIWWSKMSPEVLEEPSTQTLTLLSDSWLEFLNLSPLFKQ
 KLAALLKRVMDMSNVTVIYPPIDRIMWWSYCCEPEDIKVVILGQDPYHRGQATGLAFS
 VAPDYSIPPSLKNIFKEIANTVPGFTAPSHGCLDCWAKRGVLLLNTILTVERGKAGSH
 ANLGWDWFTSYIIISLSAKLQRCVFMWGRKAIDKATLINGQRHLVLKARHPSPLATA
 HAATGSPWPQFLGCNHFKLANDYLVQNRRAVDWNIN"

WO 00/28040

PCT/US99/26260

SEQ ID NO 90 CDS complement (65222..65731)
 /note="glycoprotein L; ORF 47; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 47"
 SEQ ID NO 91 /translation="MRSMYTSLSLFITCGFFLITCCTGLVVPCCCKIIPLSDFIFPEPF
 EIASFHLTNLALCPGLCTATLRYKADRSTTEICVNGFHLRAFFIRILYKLNYSVPREE
 LQLLNYMQYSLDEFLAEFEDFHINGSSEGTAYTRPPLDSDRSTKVSRIKRVITRRG
 DLWRVGLKQ"

SEQ ID NO 92 CDS complement (65999..67168)
 /note="unknown; ORF 48; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 48"
 SEQ ID NO 93 /translation="MAVSIPVKGVNRETESNWRISIVTTFERHGNADRAIRSLRFFFKG
 VDHPGFLASLVILKDVITIDSEKTIERTDLIPLLQGVRFVTOQIYMHKLDHASESPMAE
 IWRDCKERFCLALELACGCQRCASAAQRLRACQACRPPKLNPHKQOCVAARLLTAVY
 NQMVLRTVSVSEFCLNALMCVPREFGFVSGDVRVETSRVASCLNLSWLYLILDSYVR
 TDLTNLEMAMSRACRIHGLSAGDPFYSALVWLKNSYACDTNTFFFTVNSTSVTTPILM
 DICASLTGPVPDVIKINMLPLVNDQMHPSVCVERANFTGSCPKVSPTHLDGLKLETT
 SLTLAADSLDDILQALELICGDDGILDSYISDINTETEVDESSIEEEIVFEELS"

SEQ ID NO 94 CDS complement (67398..68303)
 /note="unknown; ORF 49; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 49"
 SEQ ID NO 95 /translation="MSRHYGKDHLLNHMYKFHYPLGMIVGEMNTLTVNARNPLYQAA
 TLRVERALYLSKILQVLMQHRQGERFIVPQCRSNMVYCLKELHKITNDRIRGLINSVL
 PLVDAGCVGFDEELVRVLPEILKLEYPHAHELLPPHDPSTPLSWCLSHMVGVTKTFKG
 EVKEMIDTFHDLSPVSPFQYLASLVKKFFLVEEVIYEDYQDTQFNVLNLCFFWTTVIK
 MYQSCIFKDKLLDTIKACIELLKGEARQFFGWYDLNTPNLGSSALVKYTEHLIRALSV
 DSSAIPIGEICSHLHHCKHALLNLE"

SEQ ID NO 96 CDS 68494..70038
 /note="transactivator; ORF 50; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 50"
 SEQ ID NO 97 /translation="MECASLGPISGLIADLNLNLFCLYGRSRVKTRGAATCNVPCAE
 CAQGIVRILTERALCCTEKMFIASACSGVVIPPQLARVLHDVYAEMKAKCLGAWRRLI
 CCRPIMAIADSVLVTYNTLDAEGKLELRLKALCKLVFQPIFLORILAPMQLLANGKM
 VPDNYFTITGTAEKRRPVVTGSTSGMTCPGSSLPVDSLILPVCEPGLLPAPLVDSLNV
 LENPEIILSAPPLSQFVITNTHPSLPQSUSIITPTQGVVPGQCFMDTWKAVSQSIHQ
 AQTPIILAAALTGSTSAAPGPHIACSPVAGTSRQVEGSAGVDGCKPACVPQPALPPNVP
 AKRMETVAQLGNAPVKNVHIGGRVYAPLVNIPIDLTSPSGSGQSPADIANTPESRMA
 AGSPPPFAETAATVPAKRKQPREVDADKRLKGDVRGAATVNHPFGPGSGMRVREQGLFD
 LIESSTDVTANASGPKNDDMLAAILQDLYGLQSPPAIDSPSSNSDNEEIFPEVSPPS
 SGHGSP"

SEQ ID NO 98 CDS 70355..70888
 /note="R4"
 SEQ ID NO 99 /translation="MPRVKTQPKRPQVLEFMPLDLHGHTHEMDSQNLCPDGDLLGS
 YIYTENNGPFSQIMHNGQSNLTGTGESFGSYAAGDGFLGGSVSGMYGNNTGEGACSKRP
 SACRKRSAALIHAASEASVAEQGTSQGAHAVSDRIGRDGGADNRLKVSARLSDKTKS
 ALRSHPCRLRCYSLMFNT"

SEQ ID NO 100 CDS 71468..72160
 /note="R5"
 SEQ ID NO 101 /translation="MGFGNIRLGRWLCFMVWVAXIARGRSVCPTWHLTDGKYEAVYRH
 YLEECRKHEGSGSLDGSQTKGSGTKATTEANISIRPNVVTSGQNKEPPGTAPRAESS
 HDLPRIKQVNALRLSTPELAQPLPVVKSTPRESQSGGTPWNARPHAFIMHTNDMLNPS

WO 00/28040

PCT/US99/26260

VVLSFRAIRARSTRDTEQSVDRNTVTTSYRTPGRPSLFQARPSSHGARLPPSPRTMA
RYAESRTICDQN"

SEQ ID NO 102 CDS complement(72401..72820)
/note="unknown; ORF 52; similar to Kaposi's
sarcoma-associated herpesvirus ORF 52"

SEQ ID NO 103 /translation="MSSTRPKTRAPKKELTMEELAAQVQKLSVENKQLKKLINSGDPT
RSGSDPVISNTEKEAKIAAAVSALCNVATRKIEAKVRAATAKAVTRGQMEDALAGISI
RVDVSMDETTTRGGIAASADGALRRRRAQSRTNNAD"

SEQ ID NO 104 CDS complement(72884..73198)
/note="unknown; ORF 53; similar to Kaposi's
sarcoma-associated herpesvirus ORF 53"

SEQ ID NO 105 /translation="MTGSIVLALALLACLYLCLPVCATVTTSSSTTGTGTPPVTTNPSA
APSVTPSFYDYDCSADTYQPVLSFSSIWAVINSVLVAVATFLYLTYMCFKFVETVA
HE"

SEQ ID NO 106 CDS 73274..74146
/note="dUTPase; ORF 54; similar to Kaposi's
sarcoma-associated herpesvirus ORF 54"

SEQ ID NO 107 /translation="MAEVTATHVPYAFDSCKFEEIPKNNSSRIALRNKFPVVVKPGEP
LVVPLGLKIIRAPQCAFFLSGAPTDEVYHTGLIDQGYRGEIKLIVLNKTKQVVTLYR
GEVNVSLIAFMYASPGPLKCPILNLPHYSLDAGFDVTS PHAMTIPPTDRTPFTLSLYY
KSPQLSTPHVPLIVGRSGLATKGLTVDATKWTQSLVHLRFYNFTKEPIDIPANSRICQ
VVFIEDHVP SGWNILRSRVQLGSTLQISWAKIRFTDVATLPKTHPLNSRHTQSQTEP
ETARGAKGLGSSGL"

□

SEQ ID NO 108 CDS complement(74207..74839)
/note="unknown; ORF 55; similar to Kaposi's
sarcoma-associated herpesvirus ORF 55"

SEQ ID NO 109 /translation="MAAPGSFWTCCGFSPFGRVGCQYRPLPDPLNECPHWRTEIAMG
LPPGVDMGDVQKQAE MCTAALRQTYLLAVQSNKITEYLRRFDAARVPAGCQETVRIQIS
KLKSIQNV IWNAMLSLAIGDITVDES AFHALLNKRADET VSLLEMEKLATTIASDDSV
TWAAEINNVLVDTEASSNP SHPVIRQPTPQLAVADNIVPDKIIQDAQADG"

SEQ ID NO 110 CDS 74851..77337
/note="DNA replication protein; ORF 56; similar to
Kaposi's sarcoma-associated herpesvirus ORF 56"

SEQ ID NO 111 /translation="MVDEIRAIFSTSGDMAEVIDILTETQATASFFCVLHDRGDAPI
NTPHAVIKLCLPAKRPGGPRCLPLMVNLPAWQVNLFLTGDAPLTS DNIKDRIDLAQ
TEEILEPILSVLACKRSAQQT KHSF KSKVAFRAKFVSALRKVYKMTSPYWMITLL
GSFEASFVLGTFYFFQSHICTAETLVHLTRLFSSSQGQSLVTNTYDELGRVFGSD
FLGIVPNFWAYLKYKMQDDVESRAIDQTINSIRGGLMLS PQDLVHFIYLSFYECMNA
QTFLSYSRTTSSLPTPATVNPQLCRRLEADFKHEVMAYYNKASYLSTYITILTVPAP
LPDGYENFQELACQYWCQSRDVAEIMTRINDQYPQLNLTKDLSGLLDLAALDQYSGG
PKENLFTVASRIPTYRCEFLNKQYFVLMHADCIDAYWKQNIIVPEDAQLOGLTDQDLT
SRIFYCDLGLSLPTFKQQILVSRHEYFNRLPVYRWVLD FDLKVTEGRRTLNDIYNIC
VTLRQVILETLQLIGPLKPNHPVYFFKSACPAVTWPDDISDTAFCHCDAKIGMRIVTP
FPSGYCLVGSAPLVSLTDILNRVVKL DTRLASEYPGILEDKGPFDSGIYAKGRCVRVP
HCYKVGPGGELSRLKIIICHPEESDKSAYLKNAFKVS NLLHHAPGDSVTKNGLVYA
ITDENEGFLESKTKNNLPKTTITDLAEKIERTTEKPLIDWAATAVWPKLHDTIQRFFPD
DRIGQFASVSFMHSGDNIIQVKPQKGNFFCINH KHRNHTQTVRVFLTLHSTKESEVT
VTFMSQCFAAKCNHNSPTAHFSFMVPITGT"

SEQ ID NO 112 CDS 77578..78906
/note="immediate-early gene product; ORF 57; similar to

WO 00/28040

PCT/US99/26260

Kaposi's sarcoma-associated herpesvirus ORF 57"
 SEQ ID NO 113 /translation="MRYVFHALICFIGGISSDFDDSSSDDEMDDLSTPEPEPSTTPN
 SFPEGPKSQVVALPKIRKRSRSETPVKIEHRSPLNRSRSRSTRSGSGQRSNQSGRYV
 KRFKPTVDAPRHREPWHRGKGKAPFIRRDAMAGRGRRTYGHYRGKAALTRSIKESI
 KKMHL PSTML SRAHDKKVFEGLLPRHLGQCFQVCLPAPPPLQPEVFTDRQLTAIVKSG
 GRRDALVAKKVSLAKLTSLYKPLLTFTVTGRNNQAHWLATRKNLTASAGLEALAAFIEE
 GLAWAQVCVSNRSLNDSNLDIILDSSQSVCWTFISKIRHLHIQCFLNQGEVSLVKQ
 LTYLVCINNRLAEANLAGEVKLNFKLGMLIGFALTLPALLAEHLKSGESLYLFRSFL
 EKYRPGDVMGLLNSIVVEHYTKCRSAECVITTHAMVSGGENNKG LFFFPV"

SEQ ID NO 114 CDS complement(79266..80513)
 /note="R6; similar to Kaposi's sarcoma-associated
 herpesvirus vIRF K9"

SEQ ID NO 115 /translation="MATWRPPQSGGPSAMGLREWIVTHANLATYSGLFWADDEKTRVV
 LATTPWSVGFDYLRDGMKYEDYCNQRNIPPLPSGRSRLGQAKARLLGAIRKSAYFIEE
 KDVLRRSFSFANVVFRLRSDEEMLCRLCPRASGVAAELRGLRFRMFKRKGADEAGRV
 EYTVKQLLGLLRTRPAGTFTMTAPATEASATATASGEDGRQDNSQGGAVALPGEHALP
 LSASSGLSACLAPSVDDPWGFMHIQVYYYGVQLAQTFTHSGMGVRLSTRPTDKNEHHV
 CMAPGPLQLWLPAPYMDDDFMLSRLVNALHALEDGIVLCSCQYGIMNGYGFNLWLF
 RGNTSNTSEPRRVP SGVHRVFDTDEYMLKLAQSPRPSDPGPPDPFAQI WVS AWSLYE
 EEDQSQAPICIVVHQREIYRHF"

SEQ ID NO 116 CDS complement(80686..81933)
 /note="R7; similar to Kaposi's sarcoma-associated
 herpesvirus vIRF K9"

SEQ ID NO 117 /translation="MAGRGVDIRAWLVAAVESGEYRGLVWENEDKT VVRVPWNKVTAD
 RSVWNSEKFFDDYCNMRGICQGEKPSHYGRFRKMRFYDMRHHKSIRELKFINKAYGR
 PGARYRLFRLLPEPVVSCAMCNLMSSSTETQCLGLISEFQYDQGGSGRERRRVFTATV
 LARSMDKNKRVREHRLPGAQIQLTFLYFGETVGLERVHAGIRVCSRPCPVLAGHACCF
 QDERTLFLPSPGVVDCQFAREDLRVMHKKCEKGVLTITLTDTGICVKNLENREMKVLTN
 NEEYKDLPSRQPVQVDMVDYLRALARSPNPGDEPPRDYALCLSVQSPNPV DAP
 IAMRLRYVCETSSVCGTEGCFYPGTTVTSEGRDSCSFQMEDPGEGETSQSHDPAVELGD
 SGPDSMDDPDAGTSGEDDG VACS"

SEQ ID NO 118 CDS complement(82262..83317)
 /note="R8; similar to Kaposi's sarcoma-associated
 herpesvirus vIRF K9"

SEQ ID NO 119 /translation="MERPVVRTKPSLRGWLVECCETGRHPGMRWVDEERTLIRIPWN
 HDRGSRGVEEAENKIFIDYCRSGILHAAGRELTAKECKNWLSAISQTVSDVSTK
 DNLSTPYPDRCRIIRLLPITVRSCARCDQASGTTAMLRGLREEAVNKFGPVGAGVRYT
 GAVGAGGEQCWMLRIMFYGGDRVGEVVTESSNGIRVLPLSERRPQGHICAAPIAEQA
 LVPEIPGHLAEFQAEALRFLDKDLLRGLAFWADPSGIYIRWLGHSLAFVQGNVESTGA
 VAVLSCANACRAFNLVDYMTAMARTSPDGAALPQACVYLYFGGVPTPEGGVQSTVPLI
 IQLWHECLWRALSAANV"

SEQ ID NO 120 CDS complement(83491..84252)
 /note="R9; vIRF"

SEQ ID NO 121 /translation="MDSGCIACILDENSEGIINYLEQVCGIGLEPGMPLPAPLPTLV
 PTRSAYARAHRLGVPEAPLPHQIVPFWRRLRIQVYFGVLALDHTSQDRRGVRLHPRPV
 PHPGHLCFYGTGFTVWFPSPDREKLTAEQITQIKTMLVAYNEGIYVHGNETGVYVDNR
 NRETLYAAGNDCNGDI IQREVMFLSKQKIFNFMGMFMRKLARSPPGESHAPCNGATLYL
 SQQPGAQESQVPISVVVCQDELVQGHMNP SRWCS"

SEQ ID NO 122 CDS complement(85052..86209)
 /note="R10; similar to Kaposi's sarcoma-associated
 herpesvirus vIRF K9"

SEQ ID NO 123 /translation="MAAGESRRGPSRYGMALKEWLTFKADSGLYPGLFWADEQKTRLV

WO 00/28040

PCT/US99/26260

LAATPPSFPNYDYQRDGHQHYDAYCELRHIPLPSGRSRLCQARGRLLGAVRKSXYFEED
 KEFPTDQFPFTALVFRLRSSEEMSCPVCPRVCALRLELRNMRFAMLRGMLHALSGPS
 VSDQERRYREGHQDGHDAQDDDAAYSSGLLRARLMACAAPSAGDPWGHMHKIYYYGQ
 LQAELLTATGQIRLSSKPTNKAGHHVCVLDGPLQAWFPPIQOTTESSVVQRLEDALK
 WLVDGIIFCSTSRGIMFTITGGPNVWFQGNTEPYSLPHRAYTGMHVWAFDTRDYLLD
 MARSPSPRDTGPPAAFVKLWVSGCSLGEERNSSRAPLSIIVYQTEIYRHF"

SEQ ID NO 124^b CDS complement (86355..87527)
 /note="R11; similar to Kaposi's sarcoma-associated
 herpesvirus vIRF K9"
 SEQ ID NO 125 /translation="MAERDMDLKAWFIEAVESKRYPGVEWDDDKTIIRVPWNRCTDS
 RVDEDYNKIFDDFCARGVCQTGSHAQFKKIRMLYAVRSHRYLRELTPPSKAGGVSG
 ERYRLFQLLPEVTVGCDLCNLIATTSLSHSCSMGSCVREDVFERTRRPRAKAPLRVSVY
 KRKSKRLQDSSAQPVLGAVEVSFFYFGENVGQILRAGSGVRICGLPDPKRPGLHCCA
 DNPLTCFLPSSQLIPCEFARADLQALQKTCERGLICVMTESGICVKNLEERNMTALTN
 YSENYELRPSQPLQAFDLLHYLRELARSPTPGDVPPRDCAWIFMCPSTQSENTWDAP
 IALKLRYVCNDDVSDDVSNGAAGDDSGDEGPSGAGVGASGTTGSTSSTLAPYGRK"

SEQ ID NO 126 CDS complement (87894..88961)
 /note="R12; vIRF"
 SEQ ID NO 127 /translation="MAEGRAGSIRVNRPSGLRAWLLDCCDNDKHPGMHWLDEEKTIVR
 LPWNHLKGAGGVSDDERNMYLDYCQFKGIRQTGNRRLSVRECKNWLASAIRHSQTVED
 VSTEENLSAPAPNRCRVIRLLPIFVRSCPLCNEADATGGMLLDVRNEVTARFRYLGA
 MEYEGAVGGDGEQCWMLRLVYYYGRLVGNMEVGS PNGVRLLPAPKRPLOGHVCAGIR
 PEQALLPHTPQDMFPHQTSMLKWLKKEIIRGLMIYADGSGIYIRYMGHVP AFLLGNGG
 SLEPVDIINNARVLRVFSLAQYLSAVSATPPHGTFRFPAAYASLHLGGVPTPEGEPCPT
 IPLSIQIWHECLWRACGDAAQ"

SEQ ID NO 128 CDS complement (89122..90216)
 /note="R13; vIRF"
 SEQ ID NO 129 /translation="MTEIETHNHLRRWIIISNLEANTFPEHLWCDEEKRSFRISWHR
 GMSGMQPVVAYCLDRDLECGRQHNVS ECRKRLRLVLRNAGFEQDDARATTTFRGGER
 FFYLRPAVDPLCYACILD SHSETVLNYLEAACVHGLEPGTLP PPPAPAEADGAARSVY
 ARAARLATVAPPHPDQITPFWRLRIRVFYFGSLVAEHTSQDRRGVRLHKRQDPKPGHE
 CFYGTAYKMWL PKPQLDGPLTPEQRETVC EIIINGCEEGVFLHGNELGMYVDNRTRHTV
 RCAGNDAEGNHAQRAVRSSVKSQIFVVMGLLRRLARSVPVGDTPVPSNAVTLYLGGRRPG
 SSKRPQVPVTLVICQDELTHGDIRAARWIL"

SEQ ID NO 130 CDS complement (90462..91544)
 /note="unknown; ORF 58; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 58"
 SEQ ID NO 131 /translation="MGTYTSEASLAWLSFMSGTVSASPFI LCFIYHSLYFVEPLISVE
 NIIFSWGA VGLHGLLLLFCIFGLPAWLSRQVDVPCTISAF LITAGSMAS TLGVDLPWV
 HVSIFVGSCLCLLLCVVAANDVVYLCPTIAHRY YELGFLAAFSVYYFLVLKNLFLAPV
 FLLPLVAFIVGGVCSLRALRSHPLYEAGLQRRHAIFSLTSRRYITYSIKQALEVCGWD
 FYLVTVLIGGAAAGT LSVGLTTPLLLGLVHYFFVFHVGLFCCLGLVFRSNVLALVYVL
 AAVLLTLTHVLGP GTHNLFTRVCVFTVFL LTMFGAIGCELQIIRKKLQRAANS PRIV
 LGVCACGNLLMAVVF FSLNKVELGAL"

SEQ ID NO 132 CDS complement (91555..92739)
 /note="DNA replication protein; ORF 59; similar to
 Kaposi's sarcoma-associated herpesvirus ORF 59"
 SEQ ID NO 133 /translation="MPVSFHYGARVDVDALGSISRVDHIKGIVKKGVIQISGQGRAP
 VLSVLSSVG DAGVLGLRLKNALAPLMVYSDMTDEV SF SFRNTSLGNTFTHTREMFGVN
 IAEMNVAFYHHGDES DAEGKPQFVRTTIA YGDNHTSTVHKSVDENLPSFHDRLEQA
 GTGNRLFLT VKTLTLLKWL RQKTRAKQVTVSLSETLAVATFTVDGVSKI IDFKPD
 TPDAKWTCARGRKL DVGVSDDLTT HVSLESLSVAALNACKIPGFFLPGRWHANEILE

WO 00/28040

PCT/US99/26260

VEGLPLTDSLADVRLGVMLLKVDPTDRNNAVPGNLSEGADPEGVPELPSPPRTPDLDL
KEQCVPIAEDGAEPDGGAKSLRTSGSRPEKKHGKRKHSSSPSRGKGKTKTPRATFNP
LF"

SEQ ID NO 134 CDS complement (92868..93812)
/note="small ribonucleotide reductase; ORF 60; similar to
Kaposi's sarcoma-associated herpesvirus ORF 60"
SEQ ID NO 135 /translation="MFGLSIVTAAMESPDRFLYASDHPGFLALTQETWQNRWFPSQIS
LHEDSDEVRLLSPTDREFYQFLFTFLGMAESLVNFNIEDLVKEFSNHDVTHYYAEQVA
MENIHGKVYANILNFFGGNRGDLMIYAKKIVEDATLAKKIDWLHSRVRKATTRAEKV
LLFLVIEGIYFISSFYSIGLFRLRGIMRGVCLANDYISRDELLHTRAASLLYNTMISR
DESPSVAYIHGLFREAVEIETLFIIRSKSRDVTMVNVGDIEQFLQATADRILKSINIPP
LFGARPPNACPLSYTSAKSVNFFERDNSEYVTSVHNDL"

SEQ ID NO 136 CDS complement (93794..96160)
/note="large ribonucleotide reductase; ORF 61; similar to
Kaposi's sarcoma-associated herpesvirus ORF 61"
SEQ ID NO 137 /translation="MNTETSFSAAKSAKPLTLVTDAGTGGCSSSLDPERCAESLVNSL
KATLGWDIEANSLTGLLWHRIMEDRCLVTVRDYLAVFGERLSDEVRAFMSKHEAALDG
LLQDFKQSKAYTNFVNCGYLSAVRFYDITYVLRTQGSSPIFESVAQMFMRAVAVFVACQC
IKFPCLRETLRHLVESETELDEMYLVGYAFHYISSQIVCCATPVLRSAGLRGGQLSSC
FILKPSMATEDKTLKALHEEMSPLLASKSGVGIDVSSFAEHKNITSCLKLINAHVGYF
NDNNIRPVGASAYMELWHHQICDFLNAKMPENQERCHNLFQGVCPVPELFFRLYETNPD
GQWHLFAPEVAPNLLKLYGAEFEIEYNRLVAAGKHSSSLPLKSMYALINTVIKTGSP
YVLLKEALNKHHCETQGSAINCSNLCAEIVQQPEGQASVCNLANISLPKCLRPHRGE
SGVEPGKGDVTFGFELDDAVEAAVIVNACILGGTAPTESVRRGQEERSMGIGVQGL
ADVFAELGFGYLDAESAKLDVEIFQAMYFTAVQTSHEIVLLGEGTFFRGWERSRLAQG
VFHWQTDGVPKPSHPPLERWEQLGRSIAQHGFNSQFLALMPTAGTSQLTGYTEAFYP
FFANIAASKVTSKEEILKPNVTFFKRVKPGDLRTVRRYGGDVASFPEPLKDRYKIFLTA
FDYCPKQLERAGARAPFVDQSQSLNFFLKEEQATRASVYIRDLLLTGYRLGLKTMLYY
CRIQKQTKLNALQCLDQVVGDNISSEGAESNCVQKADGERTKVCLACQ"

SEQ ID NO 138 CDS complement (96163..97158)
/note="assembly/DNA maturation protein; ORF 62; similar to
Kaposi's sarcoma-associated herpesvirus ORF 62"
SEQ ID NO 139 /translation="MKTRDANVNKLNDSLMRLLPPPPHRVSLSRGRDFSKGVRDLLSK
YVVSTTTGVEAIKDGFLSVSPTCQTYGDFLIYSQTMSSQEPRTYLFSEFKQTDTGSSI
DMLFTPTSLARLSRMDADSAPQTNRIACVWYGHEGLLDAIPNFEELLETGSLHQFLA
PVGPLVQTVHSTFVTKVTSALKGNVVAREPVTTHIGLTLPSDMFVDLDDSCPSSLRDE
PLPAHSSIVCLTYIRVNNRPALGLGFFKSGKGYCEIAAQLRDFYSGVIRTKYIQLQN
DLYINRLAFGVVCLGSLVPSGLQPSFQSLHFKGAALPVLKFTFVSNPGSWKLFL"

SEQ ID NO 140 CDS 97157..99976
/note="tegument protein; ORF 63; similar to Kaposi's
sarcoma-associated herpesvirus ORF 63"
SEQ ID NO 141 /translation="MASSIPAARADNGDENTGGLYKLTDNLLTCTGSLQQLKLLMEFQ
LKPLPTAHLMSMPTVTRFLNTAFKIDNPLVSFIQKHPVFFLMRVARLPEPVITDHQSA
ETSTGILSEVVNLNTAIRKPHESPAAKNDYLDNRILAMITEYIHHVTSRTPSGIP
PTPPMGISHLPCVEQILHETHRQYWNLTLPESLFIDIGEVASPLQTLWILSYCKKLQL
APPPPLFPVDELARRLVTGHHELFVPLSTSLETYITMPVSKQRAFEIYSVFAKSKNIV
DGTPILAFTDTELTFTPELLFLYDFVIESLCKNQAYGCSRNAIEHFIKKGIDFMAEL
GAFIEKTCGYRSTVLSNVRAVKARLASGLSKEACEDFRAMILMTPHETTPKWENFT
DFLEMVNQTLTYGYFYFECLNQYSPTSISLAKIQNILNRVDAEQSDRALWRTPLIGSF
PPPWKLNNVLAFFKPSTPVATLQKIYKAIPSYLMRSLFEIAANKSWGNIALAESAPLT
DIQTAEPDQGPVSAQVIAKYCSRLQISATDYDAAIVSSPGFAAEFIKTKLYPILSEVL
RNTSKKNRSLFQIRWLIVFAAEDARDLAPIRRSLALAYFQIMDILEEKHSPESFYNLL
DYLQETFR CIRQVPEATCPQEFLQYLFQFQNIPIAASFIQTSMTFVDDLKNGIPGIL

WO 00/28040

PCT/US99/26260

DLVSLGAAFYNMKLLYDSTLDTVEIPTTEEGQPIVVSFVFKSTIRVLEKLLQEAVIAL
 TQTSEPMYAAHIRLMQHLTYMQKIAGHEIMTTQLPSVFHEIHEGYLQCFKRFKRLMLH
 VTGSCCYSLTRYFGFLYQPLIPDTIVQKILNFNDKTDTTDDILKSLSQPVRQGPLSA
 ENESSRSLSKNNVELLQKLYDDFRTASTNNNPTSILKEYSGNYNETQVSVWDSTYNLV
 TYTAPDDTLKFTPVNTEALDRMFAE"

SEQ ID NO 142

CDS

99980..107626

/note="tegument protein; ORF 64; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 64"

SEQ ID NO 143

/translation="MELPPIFSKFIEGVATTHQADCRFGQYAGSQCLSNCVIYLAQS
 YFNRESPVTDNDLDDVLRQATLDFILRRSGTLGYNQYAQLHHIPSFIKTNEWTAAI
 FQSQEYFGLIGLDAAIREPFIESLSILTRNYAGTVQYFLFCGDKAGAVIINKKTFY
 LFDPHCVPHVPNSPAHVISSSDPTAILEYVSPDREYTGSLYIMPSEYVNPHEYITN
 HYRTITFAKVHGPIDISTGIEPCTIEDIPSPRSPDVTSKSSNLARVPRTTDTSSA
 KPPPATLSGLRGAEPPTSYPDPATNDADTKLLTPAPAQTAVDHPEFQTPGATLLLSE
 LSASRGRKRKLSLQRYSDSDEASSDDEGAPRRRVHDDAISAEVIWMDDDISPLYSPS
 ATPSFDDVFDSPPMSPPEFTYEDATEDTDGAFLEQIARDAETPFSAFDDLITDHDFFSL
 DKKIEQLIKYEAPSOHLNPNISDKQNGRAVREAAALQAMDKIMINIILEHGLITDAQAR
 GPSACKNVLQFFILWGEKLNIPISDAKQVLELDLQLIPLHTAISEGKFKQGAFKKHLT
 TKINRCLASMRATHADAQKKLASAFNVEGSQISSSEAKISVRALKEQIANHLSPGFLA
 VYSADEVKHLRDKIQDLKTGIEQRNKEIQQEELFFDAMLTALDTFQPPPKTAFPMEIF
 PHRKTEVMLDHLASITTRLTEDATEALNNYLETPPDQGTHITNIPNFSSIVANIISTL
 KILTYAENDMQLNVTPMATYRRQLLYLGGELATIFNLEWPYETVPPVQELPLVARAKA
 KMESVTKMEKNQQAALDQILGDAETLLDTITATSGDENPVRAMSIPILETYITNAGALI
 GSSRNQRFEKLKAAIHDLASSESFIIMLLNNTRLDNISDNLAKIDGILTNTRFLSNA
 TVSKTLQTLGGSLIRECVEALNKRSPSSLNARLLAVQTLGHASVPDHEHTLTRIVSG
 VASAQKESAGDDPDRWTRVTGHLNELKLVTTSQSRVDKATRRKLLMIITRDLKEAEVSQ
 ETVLETRWQENVLKFQPSTSKEIEDFLQSAPSAKARKFAEKHLRTLITQFNHERPPS
 EATAVPMDYTPPTIPTPQAVSTATAEKGAAWNKIQQAFQDFNFHLIDASDWQEMASE
 YSRHGSSLPGTVGPKLVRFMESISNTLDDILTQKLASLLPNGPAFRPPAFDWIAPYQT
 RVNAFLKTIGLPMVRNLADKIHHCQCTVSHAVQSADLQQATVGTSLERPAAEYCRILS
 DMQVAFNDHGI AVRSEAAAYTDAINSPANVVT PPKPNLEAPKKLITATDALTVEDFPD
 FLKTSILQQEQRILALQRAEFQQLSEASISAAERLRQSTRDEIAGKMATAITQLPRAP
 VAISSRPLNLSKPIDFLSSTVYDKILDKEPYETAIAGFAWLEIATKSMVYSQQNETQ
 QLNVLLESEVEKQSTVAQRLHDLLELSAKNTDDVKVLKQALDELAPLRVKGGKTTVDWK
 QKLESIESLLRATRTAGEISSELERIGTQAVGTITVRDLGTLSDQCREAANFLRQASL
 PEGFSDIGTKLSELQAYIKYKKQFLEHFETTQPNVFORFPLSQNITENVPARPAMDSV
 ARLTNHLHVRGSAPHFTTWIETLPTVDPEKPTHVPAHGGAPLHRQITYSNVLEALFSL
 CSTTLTPVPTAPGLEIATRARRGAEAAATWMDRQWPDI AQTLQDVLDTYEHTTAHANRD
 AAFNTFLAMCVFTQIIRGASRAVTLPKLPSTAVDFPEEIVLTPRECTTLVTAMWPTLA
 AAILRLKSYSEALGLMSRFLPLMFQALPHLTLEAQVKNGPHNTPPQLRCFAKTEAIPY
 FPAQWQSANLEQSLWGQTDFLQICDNNQRKARVAAVTWALTIDGVVLDQLWSTFKPM
 TAASDDTYVDLVETLHLTTFGPRGPTPRRETTTEHPPYEGQPTGYCISGQSTTPVQA
 SNTPVSAFEAVLGAMVFHVPIRIFLAATPKRLGQARGGMGLLTPILECVPDVEPFKSL
 YNAPRKVPVPIETLPASLHPHDERQVFLRQAQWLSYRFTPHEAARSSTPPLLVIDPEN
 LVTATYSSGGPANFESRPFYVMPGPYPDPWPKTL SVTSNTSVTHLSHDEICNLF TTLS
 REHGTVOGRDIFAAAPTNTVTEQ TANPPAWETDNRLITQTETAKKPHIIPASPKARTD
 PPVETTTTHSQGQASQHANSNVNQPQGQITSHASRNTPTAPQASSSPEKFNTQTPVRL
 ISQSETAHINQPASGQVTEPKGIFGTYKPRVLTEPAKPANAGVASRQPEATTTVPKL
 PINPPTARVFIGTASKLSPAVEESHGATPDHQS KIDREKYAESRPRRTPHLEEGPRE
 PHVNTPTSAHINVSSQGQKT VHGRENPGLQTATPSAQPTASNPRIQYTLPRTDGRL
 LHDESEVESTPTEEVKRSPKTQDVSHGPEPDDSRWTAPLGPTIEIHRLEHPQILKNIT
 SLTVPTPRVTPIPTNIWIPLSHVNIQHEEITRAKNVLMRFIQNVRRKLQASSDALSE
 AIARIKFLYL"

SEQ ID NO 144

CDS

complement (107637..108146)

WO 00/28040

PCT/US99/26260

/note="capsid protein; ORF 65; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 65"
 SEQ ID NO 145 /translation="MSSLRVKEPIVQGRLEHDYPNHPLVAEMNNLPQGDMSPAQYAIA
 KRNLYLVFLTAKHHYDMYMQKNGILRKDHLRGLRGKKDASSSISGVLSGSGSAAPSV
 PVASTLGSNSFTTISGPHSLIGSMGPAPGGGGPGSVASSGIGSTSLSPSDATTLDTR
 RSSQNKKSK"

SEQ ID NO 146 CDS complement(108152..109498)
 /note="unknown; ORF 66; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 66"
 SEQ ID NO 147 /translation="MASGRLPNLADEAACHGRGSYPahrWLDGSRLGLDLAASIRSI
 GLCPECYVCFVTYGLGAWDGRPPKWACTLISAPSFQALNEIATGWRPDNPPKNGDVR
 SRLHDIGRSLLEAYAWVLRCICTGVGCPSEDEGLSLTAVPRSAWSRYLVVSFQACCLV
 CKTLNCRQRFPLVTCLPQHALLDLPVLRKKWNGGGCVSMQLNVPSISRRLGANLNEVSP
 GPSDAGLLASLRELAPTVPCGNPFNALLRSLTFRALLSMSRVVLPIGESTETEISRD
 GQKVLAYNVLFPCISLPVWSQVVARSVLEKTVAPRVVVCLECGYCLNFGRGKFETVN
 FPPTNVFFSRDQKEKQLSICATTGRVYCSYCGGSHMRVISLFEITCVGDPYLRCVLAN
 NAAHAIRDANSLVSVVVPCLASPCATGLLKHRLVAELFYLTSSISSLSCGKCNR"

SEQ ID NO 148 CDS complement(109524..110198)
 /note="tegument protein; ORF 67; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 67"
 SEQ ID NO 149 /translation="MSSGKRLVDELCDLVVSYLGPSGISLDLERCQDGAPVYAKGGAV
 PVCTVRLQHGCVYHLEFVYKFWLHKLERLAYPFAPCFVIINNGLATTLKCFCKPRDA
 DAQFGKNLPINSDVYLERNSSVSLGQDDFMKFARLVFSGDLNVYSSMVICRTYFTEH
 RQVLQFLVVTPKSAKRLKTLRTVFALTGHSDGLGALRRTGSVARPSGSELKDIGRGE
 RAAMTN"

SEQ ID NO 150 CDS 110609..111982
 /note="glycoprotein; ORF 68; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 68"
 SEQ ID NO 151 /translation="MFVPWQLETLMRHWPSLRGLVEQSFLPGTPDGAFNSPVLHTQD
 SLQPASSCRVCSLLFTLVRTFPPPDSEFFEDYGWLCCLTYAPRSWTATLMVAADLLEL
 THVYFPQCVKDGPPVYTAQSILGIDVQLHFFATRCFRPIDREQILHTSHLNLQTEFIR
 GMLEGTIPGSFCFKTSWPRTKDDQQPTVACCSVGRGSHNTNRDNLPEDEEAFNSTN
 AEEKPSLLGVFSATWAESQLLGSDDTQQADTHLQPSAFPTPEDADQSQGCLMHPPTLNL
 KTKNHTASICVLCECLAAHPDAGPVLKDLRRDILENMENNVLVNRISYILNDPDSLS
 HVRDEHLRGLIKRCSAQEIHKHFFCDPVCVLNTYSHCPAVLFKCPPPEKYKCLKARLA
 TGEFLDCNRIFDCETLQTLAVLFGKSQLAKIGKTSLEIIRELGFQLRRHNIQITHPF
 QTSNLYI"

SEQ ID NO 152 CDS 112004..112897
 /note="unknown; ORF 69; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 69"
 SEQ ID NO 153 /translation="MPKQPRSLASRAPYAPSVRRPDGPQSTRPASRHGSKSEIMQW
 KKLVSDDTQFFSALTRRHLEGVDFLEMGTPICTSKSVMLPLNLKTIAPGRCVSLSSFG
 HSSNMGFNCSSCTPTDRSAVSLDANALGEDSARKNSELCSVALTFYHHAQKVVQHKGF
 YLSLLSHSMEVVRKSFTQPGLLYAHVLVLTFGHDPLPIFTVDADERLALWAVFHTRDL
 HLGETSLRLIMDNLPNYDITVDCIKQTYIMKFTPSRPNATVTVPVNSICEAVATLDC
 TDEFREEIQRGTAINSQGLL"

SEQ ID NO 154 CDS complement(119211..119735)
 /note="FLIP; ORF 71; similar to Kaposi's
 sarcoma-associated herpesvirus ORF 71"
 SEQ ID NO 155 /translation="MFPHKRLVDFGRHLEADDREAVLWLFDRPASDDTPEGFANGLCP
 STGEPGIPLPVILLEAVFLVGRDLVSTFFLLDVGFIIERLRSSPSYFSYPKHLMLSID
 RQLSERDVKNLVFLTGDQLGRRRNQSPFFRWLSQMEKAALVSPSNYMLVSDLLQAVS

WO 00/28040

PCT/US99/26260

RRDVAKVVAANAPG"

SEQ ID NO 156 CDS complement(119794..120558)
/note="cyclin D homolog; ORF 72; similar to Kaposi's sarcoma-associated herpesvirus ORF 72"

SEQ ID NO 157 /translation="MASVGPVPTGTIDPVLYQDRALSNLLAHEASFVTSTACYGTIQT
EVTVGMRVILGTWMRSVARAHQADASVFPLAVSILDYLECRSIPRRRRFQRLGAACLF
LAGKIRDNLNPFKAFLCFAAEDFSVADLLKQEKSIKALRWKLEAVLPTDAIGPTLF
KSGFTKEQLFALHSQVVESVHKAIVNPATGGLPPSLVAAACALFSLGAAAPPPARLAE
AVGVSAATLAAAESVATTLREFDEDHILSNARGSS"

SEQ ID NO 158 CDS complement(120866..122212)
/note="latent nuclear antigen; ORF 73; similar to Kaposi's sarcoma-associated herpesvirus ORF 73"

SEQ ID NO 159 /translation="MWGSRQHRSGIVSGHLRSSCRGHCGRGGTREQAGRRGRGRGT
AAPAAAPAPPAPTTS GPQVRAVAEQGHGSDTETATESRHGSSQGSPPSGSGSESVIVLG
SPTPSPSGSAPVLASGLSPQNTSGSSPASHPSPSPSPSHPGPHSPAPPSSHNPS
NQQPSSFLQPSHSDSPEPPEPPTSLPPDSPGPPQSPTPTSSPPQSPDPSGPPQSP
TPQQAPSPNTQQAVSHTDHTGPSRPGPPFGHTSHSYTVGGWGPTRAGGVPCRLRLR
CTSHNSHEDEAPERQQEQEGERQQQPARPPRPPRPPRYPIPIPYPSSEEEVPRKYRP
QRRFYRQVLGPRIDPPRPGPWCHGVIFCNSDPYSLYRLARCLQFPGIRASSVRVLPDA
PGSPVIPAFICITVFCQSRGTAKAVKKARRRWERHHPSAPHFQASIVRMDRGLPIQH"

SEQ ID NO 160 CDS 122866..123627
/note="R15; similar to Kaposi's sarcoma-associated herpesvirus K14 and ox-2"

SEQ ID NO 161 /translation="MSGGITLTLATLATVRCALQTHYAAVPVHSTASLGCVLTTTPH
DVLIVTWQKQESPPVNVATYSSEAGTVVQPPFAGRVDIPEHKLTRTTLKFFNATLED
EGCYLCIFNAFGVGKLSGTACLTVYVPLSMSVTIFYPPINPTQLVCRAEASPAVSNNWT
GVPPELCSEPEVFPRPNGTTLVVGRCNVTSVDPEDLENATCLVTHIGGLAAARPLDPV
FSDPLEGTSHYVVGVVAAAALVGLFTGVFLYRSM"

SEQ ID NO 162 CDS 123924..124952
/note="G protein coupled receptor; ORF 74; similar to Kaposi's sarcoma-associated herpesvirus ORF 74"

SEQ ID NO 163 /translation="MDALNNNLNLLMDFLSNYSNSYSSYDDNMSYTLDTSTLCRLTV
VFPPTVYAIICFFIFCITLFGNALVLYIFFKFKALANSVDVLMAGLCCNSLFLCASFL
FSWLLYVAPQMLTSATCKVEIFFFYLYTYFGVYIVVCISLIRCLLVFSRRPVWKHGA
SGFLCVCVSLIVALALSANASLYRTALRHPETSEWICYEDAGEDTVNWKLRIRTTSAI
CGFLVPFGLMVLFYGLTWCVMVKSTKLARKGAVRGVIVTVVVLFLIFCLPYHLNCFDT
LLRTGFLAETCYLRDVISVAMHICSLQLQSMYSAFVPVVYSGLGSLFRRRVDRDTSVFR
CFSTSGSL"

SEQ ID NO 164 CDS complement(125057..128953)
/note="tegument protein; FGARAT; ORF 75; similar to Kaposi's sarcoma-associated herpesvirus ORF 75"

SEQ ID NO 165 /translation="MAQRTNPRWAAAALSPREEAFIHDNSDAESVLALVPEQCFSEFL
LWLVTSPSDNFDNDDDDPALGVIWHLLAPLVNYAPLETRSAHLQGHHTISLPYGPDL
RQPTTRSSEIVQCLRDSDGLDRTLRLLEVGRHLSCQTRRFVADRVPPTLAALTGLTVE
YDVRVQRQLPVTLOSTAWRPLPERDPICAAVMLPLQRNILPLAVQASNGNSYTVSRYA
VMARRSYSCVFQRLPCENVTHIADSFTHLHSAIQTGAGALQNILFHATLLPGGEIRSA
LCGFYATTPSVGAFSRARHRAINTTATLHCQQLARTGTPTVLGGFLKTVHSATTSEANV
ITTTSLLSVCPQAYTFLRRSLFSQPIICLGSFEPVDGDGNQRSLYLGSAAGITRITQT
LSLAYEILEGPLFTSINRAHEPASVIGHLGALVSRGGLRFLVSQLPPTILSQLTATPD
ISRETVDILVNKFLNVSAVVFAVLPRDTEPEPGPLDAIRRAARICGCPFAVVGETC
EELGIQFVNDLELWNPAGAWPIRQPTSAEVIATFGFDEQPVSSNWLVRPEEPEDGGEQA
PSPTDWGLFRLASVVDQLLRCPVTGSKFVTRHVDRCNGLVAQQCEVGPLGRPLSDY

WO 00/28040

PCT/US99/26260

HIVNHTSVFTDRMARVPIYRQPITRQDATERLVSPETWVTQGRGRNRWVGQCVAYGE
 QAYKMGINA AVGARYAICEAVTNIMLAHVRRLS DITLTASVGWN PEDDQAWLLQHTLF
 ACKELCRDLSINFAITSAGSTPCLSEELISATQQHQTVAPVPFNAV VITATAEVKSSR
 QRVTPDLKATGNLIVLVSPVPHLTQGSTFEHLCLLPSTLPDVQATHLANLFMLTEA
 LLSRGLVVS GHVDSDGGMVVTAIEMALAGNRGLQIRIPSEETPLQWLVS ETPGVIFEI
 QPQHVDEV RQACQNFDCRATVCGTVGQEGLSERIVISHNND EYVSQTLTSVAANWTSF
 SDEQWYSWG PSFTPAQELYRKDYGCNQHN LGHLAEVCRNSELT LFATPSRPPAVAALV
 TPGAPLPRALMAAFTNVGFDVA AVSTDDL RGGNLRGFSGLTIGGT VGIEDSYVGARC
 AIMGLLNDPGCYGGLMAFFRRADTFSLCCGEFGFQLLGALG LLRETPHDT PGPKTPDQ
 WDIHLEENASGNHECLWNLN LHIPQTTISIMFRVLRGLVLP GWANGRYLGVRYP RAME
 YHLNQQRIALNYHTGNADPRMF AQHYPRNPSANS AVAAITSPDGRHLASLVDPAVTF
 HPWQWAYVPPELADMTVSPWALAFQSLFLWCIRNRQ"

SEQ ID NO 166

PCR primer

CCTATGGGCTCCATGAGC

SEQ ID NO 167

PCR primer

ATCGTCAATCAGGCTGCG

SEQ ID NO 168

PCR primer

ATATTAAACACTCGCCGC

SEQ ID NO 169

PCR primer

ATGAGGGGCCTTTTCGTGTGC

SEQ ID NO 170

PCR primer

CTGAATCCCGCTGCCAAGGCC

SEQ ID NO 171

PCR primer

ATGTTCCCTGTCTGGTTCGTC

SEQ ID NO 172

PCR primer

TTACATCATAGCTATTGCGCG

SEQ ID NO 173

<213> Macaca mulatta rhadinovirus 17577

nucleotides complement(23398..23668)

SEQ ID NO 174

<213> Macaca mulatta rhadinovirus 17577

nucleotides 25065..25368

SEQ ID NO 175

<213> Macaca mulatta rhadinovirus 17577

nucleotides 25518..26525

WO 00/28040

PCT/US99/26260

SEQ ID NO 176
<213> Macaca mulatta rhadinovirus 17577

nucleotides 114979..115383

SEQ ID NO 177
<213> Macaca mulatta rhadinovirus 17577
nucleotides 115385..116413

SEQ ID NO 178
<213> Macaca mulatta rhadinovirus 17577

nucleotides 131731..131926

SEQ ID NO 179
<213> Macaca mulatta rhadinovirus 17577
nucleotides 132333..133719
partial terminal repeat